

AMERICAN BEE JOURNAL

The Oldest Bee Journal in the English Language

ESTABLISHED BY SAMUEL WAGNER IN 1861

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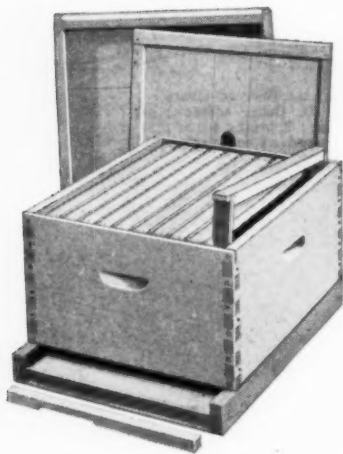
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Planning Increase?



ANY commercial producer planning extensive increase for 1938 can save a lot of money by purchasing his requirements and hauling them by truck from cars arriving at our branches. In locations near to Watertown similar savings can be made. If you will need as much as 5,000 pounds weight of wooden goods or \$750.00 in wooden goods and foundation together, these very close prices will please and surprise you. You can make 5,000 pounds weight, for example, out of a purchase of about 450 10-frame hive bodies with frames. This offer applies both to wooden goods packed in regular Lewis Beeware cartons or on wooden goods put up in packages to suit our convenience. The latter effects a greater saving only if we are given time to manufacture and ship after receipt of your order and have a branch car moving soon enough to meet your requirements. We will gladly submit samples and prices.

Where your order is for a sizable quantity of wooden goods and foundation together, amounting in total to \$750.00 at regular retail catalog prices, a similar worth-while saving is available. This is on Dadant's regular grade of foundation in standard packages, where ordered early enough to move with our carloads from Hamilton to any of our five points.

Prices on wooden goods in other than standard packages are available only if orders are placed before our rush season. Other savings on standard packages of wooden goods and foundation are available any time when we have cars moving to our points. Our business enables us to give steady employment in our modern plant, cutting costs. We'll share these savings with you.



HONESTLY MADE ————— HONESTLY SOLD ————— HONESTLY PRICED

LEWIS BEEWARE

STANDARD OF THE BEEKEEPING WORLD

G. B. LEWIS COMPANY

Established 1863

HOME OFFICE AND WORKS: WATERTOWN, WISCONSIN

BRANCHES: ALBANY, N. Y. LYNCHBURG, VA. SPRINGFIELD, OHIO SIOUX CITY, IOWA

American Bee Journal

Vol. LXXVIII—No. 1

Hamilton, Illinois, January, 1938

Monthly, \$1.00 a Year

After Three Quarters of a Century

A LETTER written by Samuel Wagner, founder of the American Bee Journal, to Rev. D. C. Millett on January 12, 1861, has just come to light. It is of interest now because it was written only a few days after the appearance of the first number of this magazine.

Concerning the new publication Wagner said: "The Bee Journal is of course altogether an experiment. Whether it will be sustained remains to be seen. With the aid of correspondents I hope to make it worthy of support, and shall be grateful for your contributions to its success.

"There are a few typographical errors in the first number which were unavoidable under the circumstances. I feared there would be many more."

In the March issue appeared an article about mating of honeybees and Rev. Millett was mentioned as the first to observe the action.

Wagner's experiment in founding the first magazine devoted to bee culture in the English language found support of such extent to continue until now. With this issue begins Volume 78 and during the intervening years much of the history of the honey producing industry has been recorded in its pages. We hope to continue to make the magazine worthy of the vision of its founder.

—ABJ—

South Again

NEXT year's national bee conventions are to be held at New Orleans. The largest attendance in many years was at the meetings at Valdosta, Georgia, and San Antonio, Texas, thus indicating that the beemen enjoy a winter vacation in the south at the end of the season.

It would seem the part of wisdom to hold every alternate convention at some central point between the Great Lakes and the Rocky Mountains within reach of the largest number of honey producers. Conventions held on either the east coast or the west coast are usually disappointing in attendance.

To maintain permanent interest in such organizations it is necessary to rotate meeting places in such manner as to enable those living at distant points to enjoy an occasional convention. Successful organization, however, requires the continued support of a considerable number of persons who can be depended upon to be present year after year. Such attendance can only be secured when conventions are held at points within reach of a large number of beekeepers.

If we are to judge from attendance at conventions over a long period of years, the best interests of the industry will be served by holding the convention at some central point every other year and

"News-Week" of September 6 mentions experiments being conducted at Alfred University under Dr. L. R. Watson to produce gentle bees through controlled mating. The report says that he has produced a strain which will fly about the house and not trouble anyone. The same item says that he has imported giant bees from India and bees from China which will work at 40 degrees.

How wonderful are the ways of reporters! A similar round robin Associated Press release has reported the good doctor as being busy with irradiating bees to produce stingless ones. Dr. Watson, of course, cannot be accused of all these absurdities.

As he says—"Sometimes the attempt to correct such reports makes things worse than they were before. Of course I have never claimed to have done any of them. I don't know how they get around. I have given interviews with press reporters but I have tried to revise their copies and correct their mistakes. Apparently they pay little attention to the facts or truths. I have already received letters from people in different parts of the United States asking if they can buy queens. Of course I have no stock to dispense."

—P-N-T Baross.

When the screw cap on a sixty-pound honey can becomes stuck, it is sometimes difficult to remove because the diameter of the cap may be too large for a pipe wrench, and if such a wrench would be used there is danger of crushing or denting the cap. A simple solution is to take a length of stout cord, wet it thoroughly and then wrap it around the cap, counter clockwise. The free end of the cord is tied to any convenient lever, such as a screw driver and the pressure applied to the handle.

Frank Johnson,
Wisconsin.

T. T. Jones, 67 Prospect Terrace, Dominion Road, Auckland, S.2, New Zealand, wants to correspond with beekeepers in the United States, particularly in the south. If you are interested in such correspondence, write to Mr. Jones. We assure you he will enjoy it. He is an intelligent beekeeper and very well versed in the problems of our industry. Such contacts are always enjoyable.

An article of C. L. Farrar in the June 15, 1937, issue of Journal of Agricultural Research is entitled "The Influence of Colony Populations on Honey Production."

It has long been recognized among beekeepers that they could secure more honey from a few strong colonies than a larger number of weak ones. It has remained for Farrar to make experimental comparisons to determine how much more.

A comparison of numerous colonies of varying strength showed that the production per 1000 bees increases as the number of bees increase. Thus two colonies of bees with a total population of 15,000 bees each will produce less honey than one colony with 30,000.

This rise continued until it was demonstrated that each 1000 bees in a colony of 60,000 population produced more than fifty per cent more honey than an equal number of bees divided into four colonies. Thus it is clearly proved that "the production efficiency of colonies increases as the population increases throughout the normal population range of 15,000 to 60,000 bees."

Throopsville, April 29th, 1825
Dear Children:

. . . . I must write you a few lines concerning the management of bees to prevent their being destroyed by the worms. There has been a request made by the Agricultural Society to the Publick for the best management of bees . . . A farmer in the town of Scipieo has made a communication on the subject. And states from experience to prevent the worm from destroying the bees; You must have your hives made of good pine boards without any cracks in them for the Moth to lay their eggs in. And to raise your hive from the floor on which you set the hive by driving shingle nails in the bottom of the hive so close together that a mouse can't get in which leaves room for the bees to crawl in and those worms can't crawl the nails to destroy the bees . . . To save them from the cold in winter there may be a cloth drawn round these nails to keep out the snow and cold. I am determined to pursue this method

From a letter of Levi Johnson to Austin and Polly Johnson, at Rupert, Vermont.

It is often difficult to separate sheets of cellophane when wrapping section honey. Wrap adhesive tape around the thumb and first finger with gummed side out; grasp the corners of the cellophane sheets and so pull them apart. It works fine.

Geo. Gordon,
Florida.

leaving the alternate year open for such distant points as the Atlantic or Pacific coast or gulf cities.

There are not enough beekeepers who can afford to take a long trip every year to provide a dependable group of attendants at conventions held at points far removed. In between conventions should be held within reach of the rank and file of the membership. Lack of support of our national organization has largely been because of the fact that they seem so far removed from the personal interests of the average beekeeper.

—ABJ—

Fool Laws

MUCH ill advised legislation has been enacted in the United States and much more has been attempted. In years gone by, the national organization has been able to offer successful opposition to many foolish suggestions offered by members of the legislatures of the various states.

On one occasion a bill was introduced in the legislature of Nevada which prohibited the keeping of bees in the vicinity of alfalfa fields. On another occasion a Colorado legislator offered a bill classing sweet clover as a noxious weed and requiring that it be eradicated.

Numerous efforts were made to restrict the bees in fruit districts. Fortunately now that there is a better understanding of the relation of the bee to the pollination of many plants such laws are seldom proposed.

There is a tendency, however, to attempt restrictions which greatly hamper the movement of bees and honey and which in the light of better understanding are likely to be regarded as equally misguided as some of those of old.

One litigant once went into court seeking an order to restrain the bees from wandering on wash day and seeking damages because "the bees walked with dirty feet over the wash hanging on the line."

Beekeepers cannot be too careful to avoid annoyance to neighbors who know little of the habits of bees and their usefulness to society. Once aroused, public sentiment is likely to demand restrictions which damage not only the beekeeper but the public which benefits from the services of the bees among the flowers.

—ABJ—

Roadside Planting

EVERYWHERE one goes he sees newly planted trees along the highways. Just now there is a nation wide movement with thousands of trees being planted for permanent effect. Evidently the beekeepers are asleep as to the possibility for one sees but few good honey bearing trees included. In the north the elm is widely used and that is an important source of early pollen.

If the beekeepers' organizations would take prompt action and have wide-awake committees confer with the highway authorities they might well have such trees as basswood, tulip, persimmon, hard maple and other good nectar bearing trees included in these plantings.

The highways are of such extent as to have an important bearing on the permanent bee pasture of any neighborhood where good nectar sources are commonly used. This is a passing opportunity for once the highways are planted it is unlikely that the trees will

be dug up and replaced with something else at the beeman's request.

The development of public highways is progressing at a rapid rate and it would seem to be very important for the beekeepers to continue to agitate the inclusion of good honey plants in highway planting. Concerted action on the part of an organization will often get results where little attention will be paid to a single individual.

—ABJ—

The Heating of Honey

A WELL known lecturer recently addressed a very large audience in one of our nation's largest cities. Speaking of honey he advised his hearers to use it exclusively as a sweetening agent but at the same time warned that much of the honey in the market is ruined by overheating.

This subject of heating of honey in bottling is constantly brought to public attention and in too many cases in such a manner as to make the housewife suspicious of all bottled honey. That the quality of much honey is reduced by lack of care in heating must be admitted. It is very doubtful, however, whether it is by any means as common as much recent publicity indicates.

This constant agitation requires some attention on the part of the honey producing industry if we are to maintain the confidence of the public on our product.

Some splendid work on honey has been done in the United States Department of Agriculture in recent years and it is to be hoped that this matter of heating can be taken up there. Let us have all the facts from authority which the public will recognize. Let us know how much damage is done to honey in heating, what changes take place and what degree of heat can be safely used with deterioration. With the facts in hand let the public be advised accordingly.

Bottlers who over heat their honey and thus spoil its high quality do so from lack of proper information for certainly no good business man would endanger his future without chance of even temporary profit. Most of the heating is done in an effort to overcome the public objection to the normal process of granulation.

—ABJ—

The Market Reports

WE wonder how many of our readers get the full benefit of the reports on honey markets which are issued semi-monthly by the Bureau of Agricultural Economics, of the United States Department of Agriculture, at Washington. The man with honey to sell should benefit substantially by a careful reading of this monthly news letter.

This mimeographed publication gives a monthly digest of the situation in the honey markets of the entire country. It tells where honey is selling, at what price it changes hands, the grades of honey in the market and the conditions in the apiaries of the country which indicate prospects for future crops.

Every beekeeper who lives from the production and sale of honey should be a regular reader in order to be in position to make the most of his opportunities in the sale of his product. Harold Clay is doing a good job for the honey producers and his work ought to be better known to those for whose benefit the work is done.

At the Missouri State Fair this year many people wished to know about honey for hay fever. One woman said she had a friend with a bad case of hay fever and she had heard honey was good for it. Of course all I could tell her was what I had heard and read and that was not much. I gave her a jar of honey and suggested that it be tried. Here are the results:

They received the honey on the 21st of August and on the 28th they were back to tell me of the results. The honey had helped the hay fever to such an extent that the lady's friend was entirely out of her discomfort although previously she had to go to bed for several days at a time in order to secure relief. Of course, they bought more honey. I shall follow this and see what they continue to get in the way of results from the use of honey for this purpose.

Carl Kalthoff,
Missouri.

[Well! So it goes! It, no doubt, happened in this case that the honey did contain the pollen causing the hay fever in this particular lady. If this could be certain every time honey is used for this purpose there would be quite a number of people to secure relief, but, of course, this is entirely uncertain. The pollen present may not be the pollen concerned in producing hay fever; or the use of honey even though it does contain the specific pollen for the patient, when used as an oral extract, may not do much good. Those who do try honey and find it effective, however, are to be congratulated on this easy relief from a serious trouble.—Editor.]

I think it is a mistake not to advocate burning colonies having American foulbrood. In your "Editor's Answers" page 346, July, you answer two questions about disease. One about hiving swarms from diseased colonies and the other about moving diseased colonies, which offer a chance to tamper and fool with foulbrood. Such a method is not respectable. It is held in great disrespect and I hardly think your advice is coincident with the best practice.

H. W. Stewart,
Kansas.

[Well, well—what will one do with swarms from a diseased colony? Kill them? We advise hiving them on foundation. Still think that is good advice. In answer to moving diseased colonies to a hospital yard to be burned, we still consider it a better practice than to burn them in the yard where they originate unless that is done very carefully late in the day and at a time when there is no robbing. Handling diseased colonies in the yard where they originate is often disastrous in the case of an amateur.—Editor.]

Whipping cream that doesn't whip has precipitated many a domestic crisis. A woman who keeps honey on hand, however, is safe from this particular brand of crisis. All she need do to make the cream whip is add just a few drops of honey—not even enough to make the cream taste sweet.

Iowa State College.



Polhemus looks over the dead that have served full well the season through. Good fertilizer for the garden, these lost hosts. (And remember, many of them, without their queen, would die by early winter, without his interference and none of them would winter.)

Dead Bees

By George N. Polhemus,
Iowa.

DEAD bees, by the bushel, representing the partial population of thirty crack colonies of Italians. A neighboring apiarist had taken part of them out to strengthen weak colonies for wintering. The remainder you see in the accompanying picture, and they are now plowed under in my garden. We find them to be excellent fertilizer.

I have followed the practice of killing my bees in the fall ever since I started beekeeping for myself in 1932. I am submitting here some of the more important facts regarding my operations for the consideration of fellow apiarists. I feel that the practice of killing off colonies of bees in the fall has proved entirely successful under the circumstances encountered in my particular set-up.

The queen bee is the all-important factor in any colony of healthy bees. Within her lies the potential power

necessary for successful perpetuation of the colony and its tendencies to function normally. Thousands upon thousands of bees complete the life cycle from egg to death during the course of a single season, and every one of them is the offspring of one individual—namely the queen bee. All useful work accomplished by the colony depends not only on the number of worker bees but on the percentage of workers that are normal in body structure, health and tendencies to follow instinctive activities. The queen herself is dependent on these workers for every bit of food she eats.

Recognizing the fact that the queen is all-important, I am co-operating with my package producer to build up a lineage of queens which we believe is second to none for honey production. At the end of each season I pick out several queens

which best fill my qualifications and ship them back to the package producer for breeders. The hive records are copied in each instance and sent to him. He rears queens from these breeders and I am furnished with packages bees headed by their progeny for the coming season. I have had recent correspondence from the package producer to the effect that he is very favorably impressed with the results obtained this past summer from my apiary. I choose honey getters which show the least tendency to swarm or supersede, and I show a preference to good comb honey producers. Habitually cross bees are not desirable and are not used as breeders.

I book my packages to arrive shortly after the middle of April and I use a queen reservoir, which I consider essential with untested queens. I use three extra packages

Here and across the page at the top, you see the hives in which these bees spent their heyday months, storing a record crop.





In this yard were garnered a round of sweet, that makes even the duldest fish story seem like probability. Nevertheless, one year the figures were officially state recorded; not a doubt about it.

of bees to start a six-queen reservoir and if any split packages show enough promise I obtain additional queens by air mail to replace any which may have been taken out for use in the regular colonies. During the past two seasons most of the nuclei or half-packages have built up to at least average strength by July 15th. I believe package bees are easier to manipulate throughout a season of honey production than are over-wintered colonies.

Also the cost is no greater than when wintering is practiced. However I feel that the best reason for using packages entirely and killing them in the fall is that the chances of contracting American foulbrood are reduced to the minimum because early spring and late fall robbing are eliminated. Furthermore there is no winter loss from any cause and all equipment may be managed at will while not being inhabited.

I operated fifty colonies of bees in 1932 and since that time I have operated thirty each season. Six years of honey production with the use of a total of 210 packages of bees and about 20 extra queens has given me a total of nearly 66,000 pounds of honey and about 1,000 pounds of premium wax from cappings. The gross sale for each of the last two crops produced will total between \$1,100.00 and \$1,200.00.

The secret of producing large crops of honey lies in having good queens, a high percentage of uniform colonies, and anticipatory management. A few corking good colonies and a lot of poor ones are not a paying proposition, and after all it is best to strive for a good general average than to wait for lady luck to dump something in your lap. See to it that your bees have a modern, efficient factory to produce your honey in. The best equipment is the cheapest for it takes no more time or work to assemble and handle it than is required for poor equipment, and your returns in longer life and better accommodations to all the needs of the bees will be richly repaid in good honey.

During the winter I look my hive records over carefully, for only by thorough analysis of these records and correction of mistakes made in the past can sound and progressive methods be developed. Be the winter what it may, I have until the middle of next April to get ready for a fresh lot of package bees. There is no worry about the snow and ice, or the winds and biting cold as far as my bees are concerned.

I have no sympathy for apiarists who winter their bees without adequate protection. Late fall and early spring weather are very hard on bees in Iowa, to say nothing of the winters, which are usually tough enough. I have no pick at those who winter bees properly, but I do not choose to follow this practice myself. Winter losses have been heavy during the last two or three years, especially where no effort was made to supplement the hives with added protection.

In conclusion, I will say that until someone shows me some better method and bigger crops per colony, I intend to carry on as I have been. I do not think I have reached the peak of production yet.

—ABJ—

Comb Sterilization

In the light of the long discussion of the merits of the various methods of sterilization of combs from colonies of bees with American foulbrood, a recent publication by Erdman Braun is of more than passing interest.

Mr. Braun, of the Dominion Experimental Farm at Brandon, Manitoba, conducted extended experiments to determine the efficiency and cost of reclaiming combs from diseased colonies by sterilization with chlorine, alcohol-formalin and water-formalin.

All three of these liquids have been used from time to time by beekeepers with varying degrees of success. None have ever come into general use because of the difficulty and discomfort to the operator on

the one hand and the cost and lack of uniformity of results on the other.

The one argument commonly used in favor of treating combs has been the possible saving. Braun shows that it costs more to treat combs on a small scale by either method than it does to buy new equipment. In the light of this result few would choose to undertake the disagreeable task of sterilizing combs.

Persons wishing to secure copies of this publication should address Mr. Erdman Braun, Dominion Experimental Farm, Brandon, Manitoba, and ask for the circular, "American Foulbrood and Sterilization Experiments."

—ABJ—

Honey--Flavor--Health

This is the title of an article by Lillian R. Carque in the June issue of "Modern Living" published in New York City. It considers honey from the standpoint of palatability, energy value, age, long use and dwells to good advantage on the fact that honey brings fragrance and flavor to food in a manner duplicated by no other food product. The article also makes clear to the reader the fact that honey varies with the flowers from which it is gathered. There are many kinds of honey and many kinds of blossoms and choice of honey is mainly a matter of taste and the use to which it is to be put. Stress is given to the use of honey in the diet of invalids, a very fine presentation of honey for which we owe the author thanks.

—ABJ—

Hive Cover Weights

Old discarded plow points make the finest weights I know of. They can be obtained on most any farm. Placed on the hive with their three points resting on the cover, the wind cannot blow the cover off and the hand may easily be placed beneath them to remove the weights.

Ralph S. Karnaghan,
New York.

Washington Beekeepers' Congress Report

In Two Parts — Part Two

(Continued from December)

Institute Day

President Kelty—Each year beekeeping becomes more of a business. Honey marketing presents real problems. Now, we have no great surplus to be carried over from year to year. We are making progress.

— o —

Annette Snapper, Pabst Corporation—"Marketing Conditions Today as They Apply to Honey." Today things change rapidly. Mrs. Consumer does most of the buying. We have all kinds of institutes, calling on business people for free publicity. Beekeeping is not meeting the demands of the industry and is apt to slip backward. We must continue to hold attention all the time and keep up our support. Honey has romance, drama and interest and beekeepers must plan in times of shortage for times of plenty, a reversal of the usual conditions.

The consumer is an ever marching body and so we must move with this crowd or be lost. It requires working every minute. You should be at every major convention. It is not enough to have honey used in pipes and golf balls. They are not as important as honey in foods because people eat every day all the time. Too often we make unsupported statements about honey and it hurts us.

I find most of the honey is very poorly labeled. You do not use recipes. You must have recipes forever about your product to keep in the parade. Remember people eat honey because they like it, not for any other reason.

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W. E. Braithwaite, Division of Simplified Practice, Bureau of Standards, "Containers and Their Relationship to Increased Consumption." This paper will appear in a later issue.

— o —

Harold J. Clay, Market Specialist, Bureau of Agricultural Economics, "The Distribution of Honey from a National Standpoint." This will also be published in a later issue.

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R. E. Lothrop, Honey Specialist, Bureau of Chemistry, "Utilization of Honey in Commercial Baking and Other Industries." This will also be published in later issue.

— o —

W. S. Frisbie, Chairman, Food

Standards Committee, Food and Drugs Administration, "Honey in Foods from the Standpoint of the Federal Food and Drugs Act." This paper appeared in the December issue on page 577.

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International Honey Exhibits.

This was a very unusual exhibit of honey and honey products from 50 foreign countries and assembled by R. E. Lothrop of the Bureau of Chemistry and Soils, with the assistance of the State Department. H. J. Clay, honey marketing specialist, of the Bureau of Agricultural Economics, also assembled an exhibit of unusual honeys in this country.

In the foreign exhibits, representing virtually all the honey producing countries of the world, were many unusual kinds of honey and honey packages. Ling or heather honey from Scotland of jelly like consistency; novel glass containers in the shape of fish, ships and boats with honey from Argentina; a large exhibit of beeswax models from

should be made to make permanent use of this splendid material.

In the American exhibit was beautiful white honey from fireweed in Oregon, honey from huajillo and catsclaw from Texas, other honeys from the south and southeast and the usual honey from the larger producing areas of the west, and middle west. We hope later to be able to show pictures of the exhibit.

— o —

Honey Container Exhibits.

W. E. Braithwaite of the Division of Simplified Practice had an exhibit of containers of honey showing the different sizes and shapes of containers which seems from the work of the Bureau of Standards to be best adapted to our product.

— o —

Institute Cookery Contest.

The fourth National Honey Cookery Contest as usual drew the eye of all the ladies present. It was judged by Mrs. Fannie Walker Yeatman of the Bureau of Home Economics of the Department of



Tom Thumb Wedding. Ilene and Edwin Davis, the bride with a crown of bees. Each lifted a frame of bees from the open hive and then kissed in fond "affection." The groom has a hefty hat of playful honey gatherers. In the background, is the Norristown, Pa., Girls' Team who allowed themselves to be covered with live bees to the astonishment of the crowd. (Pictures by H. A. Dunham, New Jersey.)

England; many different kinds of labels often surpassing anything to be seen in this country; packages of beautiful design and shape and honey well prepared. Each country, of course, sent the best it could obtain from its producers. Some attempt

Agriculture. Mrs. Clara Gebhard Snyder, Wheat Flour Institute of Chicago; Miss Marjorie H. Black, National Canners' Association; Miss Frances T. Northcross, Director Home Makers' Department, Washington Herald; Miss Ruth Sheldon,

Home Service Director, Washington Gas Light Company.

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Cookery Contest.

The prize winners: Class A. Pound Cakes. First, Mrs. Irene W. Duax, 3414 S. Western Ave., Chicago, Illinois; Second, Miss Eleanor M. Duax, 3414 S. Western Ave., Chicago, Illinois.

Other winners in order: Mrs. Floyd Markham, Route 3, Ypsilanti, Michigan; Miss Eleanor M. Duax, 3414 S. Western Ave., Chicago, Illinois; Mrs. Lewis Erven, 336 N. Bowen St., Jackson, Michigan; Mrs. Howard Potter, Jr., 21 Chauncy St., Cambridge, Massachusetts; Mrs. Irene W. Duax, 3414 S. Western Ave., Chicago; Mrs. Ben Raybould, Route 1, Box 182, Brazil, Indiana; Mrs. C. G. Renninger, Mohawk Road, Tiffin, Ohio; Mrs. Adam Bodenschatz, 610 Porter St., Lemont, Illinois.

Class B. Cereal Cookies. First, Mrs. J. M. Eairley, 12255 Main St., Independence, Missouri; Second, Mrs. Ben J. Raybould, Route 1, Box 182, Brazil, Indiana.

Other winners in order: Mrs. Harry Petersen, 3102 Woodland Ave., Ames, Iowa; Mrs. Walter Sundberg, Route 3, Fergus Falls, Minnesota; Teen Clay, 2603 Monroe St., Washington, D. C.; Grace B. Landergren, 411 Eleventh St., N. W., Washington, D. C.; Mrs. W. L. Currie, Route 4, Sumter, South Carolina; Mrs. Roy H. Herr, Route 2, Lancaster, Pennsylvania; Mrs. A. G. Gill, 2240 Ashbury Ave., Evanston, Illinois; Mrs. Howard Potter, Jr., 21 Chauncy St., Cambridge, Massachusetts.

Class C. Candies. First, Mrs. Walter Diehnelt, Menomonee Falls,

Wisconsin; Second, W. L. DuBoise, 2937 N. Hackett Ave., Milwaukee, Wisconsin.

Other winners in order: Maurice Reighter, 336 N. Bowen St., Jackson, Michigan; Mrs. Lewis Erven, 336 N. Bowen St., Jackson, Michigan; Miss Vivian Ellis, Saluda, South Carolina; Maurice W. Reighter, 336 N. Bowen St., Jackson, Michigan; Mrs. Louise Carncross, Route 1, Pittsford, Michigan; Mrs. A. A. Doenges, Route 9, Defiance, Ohio; Mrs. Harry Peterson, 3102 Woodland Ave., Ames, Iowa; Henry A. Kelm, 310 N. Moore St., Waterloo, Illinois; Mrs. David C. Van Dillen, 353 Colfax Ave., Clifton, New Jersey; Mrs. G. N. Polhemus, 3203 Woodland Ave., Ames, Iowa.

State	Class A	Class B	Class C	No. Class	No. Winners	Total
California	2	3	6			11
Conn.	3	4				7
Delaware		2				2
Dist. Col.	1	5	1	2		7
Florida	1	1				2
Georgia	1	1				2
Illinois	16	26	22	7		64
Indiana	6	9	5	2		20
Iowa	6	8	6	3		20
Maryland	1	1				2
Mass.	4	7		2		11
Michigan	5	13	6	6		24
Minnesota	2	3		1		5
Missouri		3	1	1		4
Nebraska	2	2	2			6
New Jersey	2	1	2	1		5
New York		2	1			3
N. Dakota		1	1	3		5
Ohio	3	8	3	2		14
Oregon	1	3	1			5
Pa.		5	2	1		7
S. Carolina	2	4	6	2		12
Texas	4	11	4			19
Wis.	2	6	7	2		15
24 States	64	129	76	3	32	272

National Ladies Auxiliary Meeting.

Since the National Chairman, Mrs. Ethel Krebs, Sacramento, California, could not be at this meeting, she asked Mrs. Malitta Jensen of American Honey Institute to serve in this capacity. Forty-five ladies were in attendance, thirty of them registered before the end of the session.

The minutes of the organization meeting at San Antonio, November 1936 were read by Mrs. Florence Bennett, secretary-treasurer.

Mrs. Jensen, as chairman, gave the report of the judging team on the winners of the 1937 Cookery Contest and called on Mrs. Clara Gebhard Snyder, Home Economics Director, Wheat Flour Institute, Chicago, Illinois as a member of the Judging Team to tell the Auxiliary Ladies of the comments of the judges during the judging period.

Mrs. Snyder said that all of the judges felt that the entries to Class C, Candy, were of higher quality than the other two classes. That of the three classes, the entries to the Cookie Class were poorer as a whole than the entries in either of the two other classes. In the pound cakes, Mrs. Snyder said that not enough of the entries had been made with fine fresh butter and that in the mixing process, the eggs, honey, fat and sugar had not been thoroughly blended. The cookies for the most part indicated too much flour and too much oatmeal, not enough liquid being used to gelatinize the starch during the baking period. The result was a raw flour or raw cereal taste.

Mrs. Snyder told of the honey topping she was using in the Wheat Flour Institute and said that as a result of the contest judging, she had become more interested in the use of honey and would try to see that her testing program included the use of honey.

Miss Miriam Williams, Director of the Farm Kitchen, Farmer's Wife, Minneapolis, Minnesota was called upon. Miss Williams was returning from the American Dietetics Association held at Richmond this week previous and told the ladies about her recipe testing program and that through her page in Farmer's Wife, honey recipes were occasionally included. Miss Williams told of the work she was doing in learning more about the cooking of different nationalities. A homemaker skilled in Scandinavian cookery, for instance, was brought into the Farm Kitchen, and as she prepared her special recipes, Miss Williams followed her around so that every step could be recorded and the recipe later passed on to readers of Farmer's Wife.

Bodog Beck, author of Bee Venom Therapy, New York City, told the ladies about his book on Honey for Health and some of the medicinal uses he had found for honey in his



E. R. Root gave the Washington people a chance to see what it takes to be a beekeeper. Here is his Hatful of Bees, that passed the rounds of the movie newshawks and got generous nation wide showing. (Picture by H. A. Dunham, New Jersey.)

own practice. He passed out forms so that those interested in taking advantage of the reduced prices to advance orders might do so.

The next speaker was Miss Annette Snapper, Director of Consumer Education for Premier-Pabst Corporation, Milwaukee, Wisconsin. Miss Snapper has a great deal of contact with consumers and retailers who sell direct to the consumer. She made valuable suggestions to the members in their work program for the future. She has addressed auxiliary groups in the restaurant, grocer, and medical fields and brought our ladies reports of the work the women in other fields were doing.

The morning sessions then adjourned (11:45 A. M.) so that the ladies might have time to get to the live bee demonstration which was held right back of the White House Gardens.

— o —
October 27, 9:00 A. M.

The meeting was called to order by Acting Chairman, Mrs. Jensen.

Since the purpose of this session was to transact unfinished business, Mrs. Bennett immediately made a motion that the treasury work of the National Ladies' Auxiliary be taken over by the American Honey Institute, since it involved more clerical and bookkeeping detail than any beekeepers' wife would have time for. The ladies in attendance agreed that the matter of receiving dues, sending receipts and developing a mailing list could best be done by the Institute.

Mrs. Blakely of Michigan seconded the motion. It was carried.

Mrs. Jensen explained that this plan would have to be presented to the Board of Directors and if they approved of such an arrangement, the Institute would then be glad to take on this additional work. No definite answer could be given until the matter was considered by the Board of Directors.

Since only eleven members were in attendance at this session, it was decided that the group was too small to elect the officers for the coming year but that they would recommend a slate of officers, this to be mailed to the members by the Institute. The candidates receiving a majority of votes on the returned ballots would be declared as the officers.

The slate approved follows: President—Mrs. A. W. Clark, Bandera, Texas and Mrs. Irene Duax, Chicago, Illinois.

Secretary—Mrs. W. E. Becker, 10326 Wyoming St., Detroit, Michigan and Mrs. Charlotte Merrill, Wolcott, New York.

With the next annual convention being held in New Orleans during December 1938, it was thought advisable for the Auxiliary to have three

vice-presidents located in the south and that in the years to come, it would be well to have three vice-presidents selected on the same basis. These vice-presidents could then take care of the local arrangements co-operating with the State Auxiliary if there was one in the state selected for the convention. In this way a better local program could be arranged for the Auxiliary meeting.

The ladies selected to serve as vice-presidents for 1938 were Mrs. George Bohne, Luling, Louisiana, Mrs. H. B. Short, Hayneville, Alabama, Mrs. Virginia M. House, 606 Main St., Dunedin, Florida.

Mrs. L. M. White, Portland, Oregon moved that the slate be accepted. Mrs. Blakely (Michigan) seconded the motion. It was carried.

The ladies discussed the next year's meeting and indicated that they would like to have a luncheon or dinner meeting for round table discussion of their state programs. The meeting adjourned at 10:30 A. M.

The dates have not been definitely decided other than that the meeting is to be in December 1938. As soon as notice comes from the American Honey Producers' League, Auxiliary members will be notified. In the meantime suggestions for the 1938 work program will be gladly received at the office of American Honey Institute.

— o —
The Banquet.

The banquet was held on the second instead of the third evening as planned. There were two high spots, the addresses of Dr. Phillips and Dr. Beck.

Dr. Phillips—"Trends in American Beekeeping." He repeated DeMuth's famous and brilliant description of American eras in beekeeping. We are now entering the second extracted honey era. We have passed from a confusion of hive styles and practices to the adoption of the two-story Langstroth or the one story Modified Dadant. Previous years were marked by a study of bees and the habits of the bee and we are now studying apiary management and marketing. There has been a marked increase in research agencies dealing with the problems of the beekeeper, problems too big or expensive for the individual. However, this has discouraged investigation on the part of the individual beekeeper.

Education in beekeeping has made progress, commercial beekeeping areas have become distinct, we have large machinery, the package bee business has assumed large proportions and we now have many yards and central extracting plants. We use drastic methods of disease control but we have really lost interest in the bee.

It is obvious under our present highly competitive conditions that we must adapt ourselves to new conditions and do some long time thinking to put our industry on a firm basis.

— o —
Dr. Bodog F. Beck—"Bees and Mankind," an illustrated lecture, which added to the entertainment at the banquet. Dr. Beck has been featured in our pages. He is a well known physician and surgeon and is considered the world's leading authority on the mythology of the honeybee. He has also made special studies of bee venom therapy and of honey. He uses bee stings in the treatment of arthritic conditions with considerable success. Dr. Beck, with a series of slides, developed a very fine story of the use of bees and honey in the history of mankind.

—ABI—
Flashlight For Examining Bees

"A looking glass will throw the light of the sun into a drawer (of the beehive) or, placed under the hive, will show the state of the bees," says James C. Carpenter in "The Bee Manager," 1844. The same plan was used to throw light into open wells to see if there was anything in them that should be removed. Nowadays we have flash lights that serve the purpose, and we take the bee hive apart to determine the state of the bees. Nevertheless the idea might be useful today in certain operations, using the flash light instead of the mirror to determine the state of affairs in the hive without removing the frames.

W. H. Hull, Virginia.

—ABI—
Do Bees Travel In A Straight Line?

When I was a lad and hunted for bee trees, I believed that bees travel in a straight line. Now I believe they approximate a straight line, but that they weave from side to side in their flight; also that they deviate from "the shortest distance between two points" in order to avoid obstacles such as hills, trees, or buildings.

Some of my colonies are located on the south side of an old barn. I have observed that practically every honey-laden bee on its way in comes around the barn. Those that approach the hives where no obstruction is offered frequently fly very low—only four to ten feet off the ground. I have been surprised at this and wondered if it were not done to avoid the stronger force of winds at a greater height.

Grant D. Morse,
New York.

Capping Melters

By E. L. Sechrist,

Tahiti.

CAPPING melters as ordinarily used not only damage the honey considerably but they do not leave the wax in merchantable form. To remedy these conditions, three things are necessary; (1) to heat the mass of honey and cappings so quickly that the honey will run off from the hot surface of the melter in a minimum of time and, in the best practice, even without making much of the honey very hot but just warm

will handle the whitest honey without appreciable change.

Capping melters have two uses: (1) Melting up the cappings after they have been drained as free of honey as practicable. The honey which remains in these drained cappings is, after being put through a capping melter, quite spoiled for general table use and is packed and sold separately. This use of the capping melter strictly belongs under

Honey Getting

SECTION II

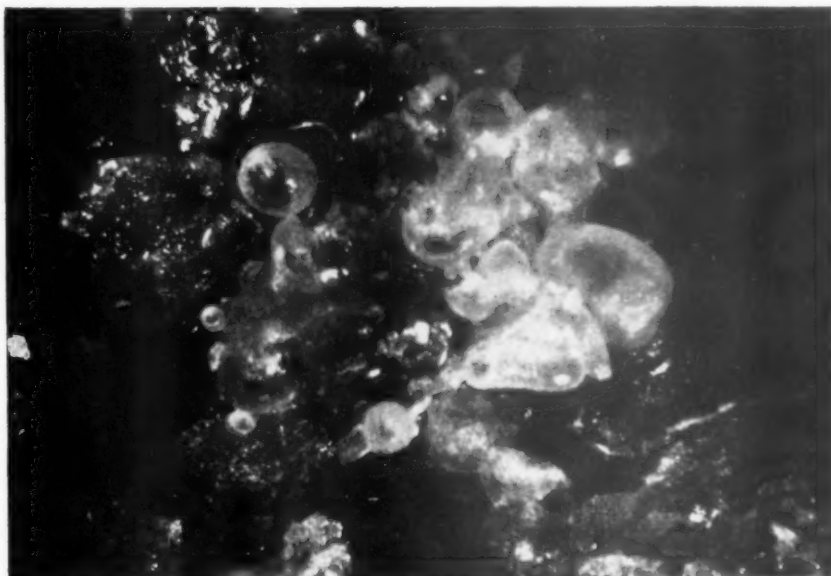
Part VIII

Wax Production and will be considered under that head.

The other use (2) is quite different in that it takes care of the cappings as they fall from the uncapping knife and before they have been drained, by heating the combined mass and separating the honey from the melted wax.

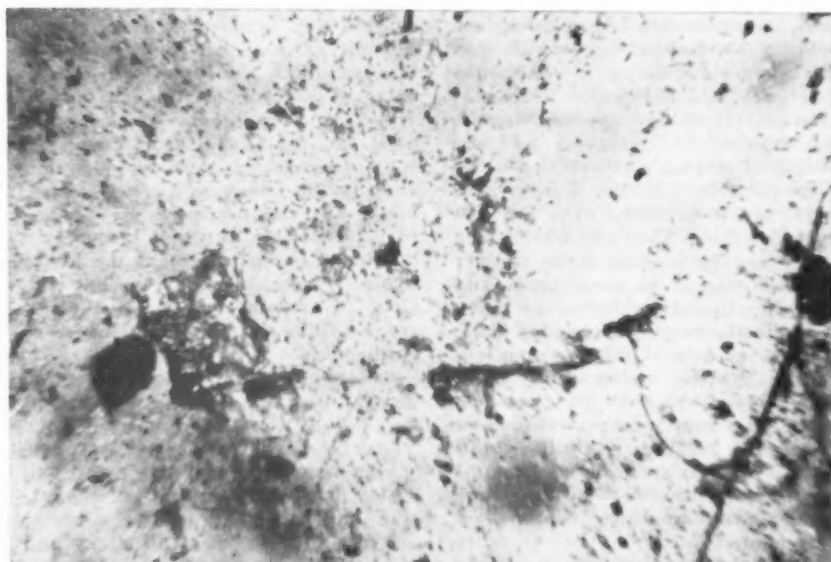
This practice had attained considerable vogue before much attention was directed to several difficulties in practical operation. It is well enough to melt cappings and honey together, but the quality of honey resulting is in most cases, inferior, lowering the quality of all honey with which it is mixed. Now that the facts are known, the use of capping melters, particularly in the larger commercial operations, has

In the picture below is a microphoto of wax and fiber and much fine waste often to be found in honey that otherwise may be thought to be well cleaned in the process of extracting or from the capping melter.



Above, are much magnified masses from the lower picture. Here we see wax bubbles and materials that give the honey a cloudy and unsatisfactory appearance.

enough to drain off quickly; (2) so to arrange the wax separator that the fully melted wax will run off from the honey very quickly while the heated honey runs off almost at once into the larger mass of cold honey coming direct from the extractor; and (3) to provide a type of wax separator which will consolidate all the tiny globules of wax into clear wax and remove it as well as the pollen grains and slumgum before the heated honey has been in contact with the hot mass long enough to become discolored or otherwise damaged. I have seen and used capping melters and wax separators of many kinds, but I know of only one type of wax separator which



almost become limited to melting drained cappings.

Some of the drawbacks to the use of capping melters are as follows: (1) the cost. In commercial honey getting it is common practice to use 9 combs or even only eight in a 10-frame super. This results in thick combs, which if they are cut down to the wood at uncapping, as is the usual practice, may result in as much as one-fourth of the total amount of honey being cut off with the cappings. It costs something to heat so much honey to the point where wax will melt and too large a proportion of the crop is rendered inferior and less salable. Such a proportion of heated honey mixed with the rest of the crop not only lowers the color and flavor but is likely to delay granulation or change the character of it undesirably, and if this is to be prevented, capping honey must be packaged separately and sold at a low price.

(2) By heating, the diastase content of the honey may be changed, causing trouble if the honey is exported.

(3) If honey has been slightly changed in character by the first heating, a second heating, done by some bottler, may cause a very pronounced change in its character. Bottlers of honey have suffered considerable loss from this cause without knowing what was the reason for the trouble. It therefore seems advisable that producers who sell honey other than to the consumer or retailer should not heat honey and should use a capping melter only for the purpose of melting previously drained cappings. This does not refer to a slight warming of honey but to heating to 140 or 160 degrees, that is, to above the melting point of beeswax.

(4) Besides the deterioration in color or quality of honey caused by the use of capping melters and wax separators, there is commonly found, in honey which has been run through them, innumerable small droplets, globules or hollow bodies of wax which remain floating in the honey as it goes into the tanks. Many of these masses of wax are microscopic and cannot be removed by any method of straining or settling which is practicable for the honey producer or, sometimes, even by the expert bottler. They remain floating in the honey, causing more opacity or cloudiness in it than usual and adding another difficulty to the many which bottlers experience in clarifying honey bought from beekeepers who use capping melters or who, in some other way, heat honey above the melting point of beeswax before it has been cleared of all the small particles of wax left in it when uncapping and extracting. While some globules are caused by the use of steam heated uncapping knives, most

of the particles of wax from this source are small flakes until the honey has been heated, when they become droplets or globules.

I have done considerable work on this matter and it is interesting to take a sample of honey which is cloudy because of wax globules and experiment with it. It may be strained through cheesecloth or through cotton and will still be cloudy just as will be the case if the work is done with a sample of honey containing small air bubbles; it may be heated far above the melting point of beeswax, even to the boiling point of honey, and yet, as it cools, most of these globules will remain as they were, although some will be consolidated into irregular masses, a part of them being large enough to see without a microscope and to strain out, but the honey will still be cloudy. Bubbles of wax and bubbles of air are more easily put into honey than taken out. A micro-photograph is given of a mass of these globules, together with some other waste which was separated from honey which bottlers found impossible to make clear enough for bottling.

There is one practicable method for removing these droplets and globules of melted wax from the capping melter honey, but it must be used before this honey has cooled or entered the main part of the honey which comes from the extractor.

If the mass of melted wax and slumgum is held together in a body above the honey in the wax separator until all the finely divided bits of wax gather together into a uniformly smooth liquid instead of a mass of half-liquid particles of wax ready to become droplets or globules when mixed with cold honey, the result will be a solid mass of clean wax, ready for market, and clean honey, free from these small wax globules and droplets. But if the wax and honey is merely run through the usual type of wax separator, or if the wax is permitted to remain on top of mass of honey until the wax solidifies, the honey will still be polluted with these tiny masses of wax. If such honey is sold and used in crystallized form, the wax in it will give no particular trouble, causing the honey to have a "waxy" taste, but the producer may sell it to a bottler, telling him incorrectly, but in all good faith, that the honey is high grade and ready for bottling. Only an examination under a microscope will reveal the actual cause of the trouble.

Capping melters have the advantage of cleaning up all the work at the end of the day, and if a good melter and separator is used properly, the wax from each day's run will be left in a finished cake of merchantable quality. There will then be, at the end of the season, no sticky and

messy job of melting up the drained cappings which have accumulated for several months.

Capping melters and wax separators which do not lower the quality of the honey run through them and which separate the wax almost perfectly and leave it ready for market without remelting have been made by a number of experimenters in beekeeping apparatus, men who, like myself, have encountered the difficulties involved in using a capping melter and have tried to solve the problem.

Mention should be made here of another type of outfit which applies the same principles to melting up new combs when liquid honey is being produced without using a honey extractor. This is part of the system of honey production worked out by the Rauchfuss family in Colorado and Wyoming and which has some points of advantage over using an extractor.

The new Brand capping melter has some of the principles used in the Rauchfuss type of melter and may be used for melting up new combs by the Rauchfuss system as well as for melting cappings as they fall from the knife. It has all the points I have enumerated as being necessary for a satisfactory capping melter, in that it heats the honey only moderately; separates the honey clean from wax and slumgum and runs the well-melted wax into a separate container; it does not burn or otherwise damage the honey as the heating element is always covered with the melting mass and the wax is soon separated from the honey which runs from one outlet while the wax runs from a separate outlet.

It has the advantage over the other types of melters in that the heating element of triangular tubes is removable for cleaning, so that both tank and tubes may be cleaned readily, and the tubes may be raised or lowered in the tank to suit the speed of uncapping. In addition it uses surprisingly little steam.

I have made what seems to me to be an improvement in this melter by using with it a slumgum basket as used in my favorite wax separator. This basket is made of $\frac{1}{8}$ inch mesh hardware cloth, fitting inside the tank and about six inches deep. This basket hangs in the tank beneath the heating element. When skimming off slumgum as necessary, or at the end of the day when the tank is drained, the heating element may be raised and the basket lifted out, carrying with it most of the slumgum which would otherwise remain in the tank. When only new combs are being melted, there is not much slumgum but when cappings are cut from old combs, there is considerable slumgum.

The Brand capping melter is, I

think, the best that is now on the market.

The large capping melter, used primarily for melting up drained cappings at the end of the season, and which will melt the cappings from 2,000 supers in ten hours, must

also be mentioned. This also has the triangular tubes.

These various types of comb and capping melters and wax separators, as well as wax presses will be considered in a later section devoted to plans and equipment.

—ABJ—

Hearing for Bee Marketing Agreement

ON December 6 the public hearing for the proposed Bee Marketing Agreement which was requested by the package bee and queen shippers of the United States was held at the Monteleone Hotel in New Orleans.

Mr. D. R. Heggy, of the Legal Division of the Department of Agriculture, was the chief hearing officer. Mr. E. M. Graham, J. L. Wann, R. K. Pond and E. E. Gallihoe, all of the Department of Agriculture, participated in the hearing.

J. M. Robinson was elected the leader of the shippers for the hearing. Evidence was submitted by the Managing Director and the Control Committee of the Bee Marketing Agreement to show reasons why the Bee Marketing Agreement was necessary, not only in documents but by personal statements from many of the shippers present. There were fifty or more shippers present at the hearing. There were approximately eight shippers who raised objection to regulating package bee and queen shippers. They were from Louisiana, Alabama and Kentucky. The proponents of the agreement had representation from Texas, Louisiana, Mississippi, Alabama and Georgia.

There were two major changes suggested at the hearing. It was suggested that the word nucleus be changed to comb package. The second proposed change was with reference to Article IV, Section 1, paragraph 4 which stated that at any time a handler of package bees might post prices. It was the feeling of the handlers presented at the hearing that the posting dates should be at reasonable intervals, namely, December 1 and June 1. These are the approximate times when price changes have taken place not only during the time of the Bee Marketing Agreement which is now in effect but also it was the custom to make seasonal price changes before the Agricultural Adjustment Act was enacted by Congress.

There was a minority group of shippers present who objected to the idea of having a marketing agreement at all. In fact, they expressed

objection to having any kind of federal aid or supervision in the industry. Those who made their objections known at the hearing represented 4.5 per cent of the total number of shippers in the United States and 5.5 per cent of the volume of business as reported in 1934. There was one other objector who has not cooperated in any way with the Marketing Agreement and, therefore this office is not in a position to indicate what fraction of the total volume of business all of the objectors represented. Those who were the proponents of the bill represented more than 90 per cent of the volume of business.

The hearing extended over a fifteen hour period.

The public hearing officials advised it would take at least two weeks before all of the points pertaining to the Marketing Agreement might be thoroughly decided by all of the officials in Washington who are involved.

It should be kept in mind that the proposed Bee Marketing Agreement comes from the desire and request of the bee shippers for the Government to work with such bee shippers in the handling of this highly specialized agricultural product.

From past experience, it seems that the majority of the business (approximately 90 per cent) really feel the need of the cooperation from the United States Department of Agriculture. They are earnestly attempting to obtain such assistance which they deem is not only desirable but imperative for the package bee and queen shippers to continue supplying bees in the best possible manner.

After definite action is taken by the Washington officials, information will be available from this office. Anyone desiring a copy of the hearing may obtain same by placing an order with the Chief Hearing Clerk, United States Department of Agriculture, Washington, D. C.

J. M. Robinson,
Managing Director.

Candy vs. Honey Production

Candy production in the United States in 1936 is reported to have been 75,000 tons more than in 1929, the previous peak year, but the price fell during that time from an average of 22 cents to about 15 cents in 1936. This does not mean that the manufacturers are that much out of pocket. According to the report, the lower price reflects a corresponding decline in wages and cost of materials. The bulk of this candy output consists of five-cent packages, which are within the reach of almost every one and can be eaten almost any time.

Sugar, corn syrup, peanuts and cocoa are listed as important ingredients. Honey is not mentioned in the list, although it is advertised as an ingredient in some of these confections. It could not very well constitute an important ingredient, since the total amount of candy made during the year was 914,850 tons, which is considerably more than ten times the total amount of honey produced in the country.

Walter H. Hull,
Virginia.

—ABJ—

An Advantage of the Modified Dadant Hive

"Another advantage of the Modified Dadant hive," says a beekeeper who has one apiary with this hive and several with the standard ten-frame, "is that combs in the M. D. hive are examined oftener than those in standard hives."

The reason he gives for this is that when standard hives are used the brood chamber generally consists of two stories, and that a fair idea of the condition of the colony can be had by raising the upper story and examining the brood nest without handling frames. This method is so easy, as compared with the handling of the 20-frames necessary in order to make a complete examination, that the tendency is to neglect examination of the combs, an especially bad practice in a locality where there is American foulbrood.

The M. D. hive, he points out, can also be examined by tipping it back on the bottom board and looking in at the bottom. Swarming cells can usually be spotted in this manner, especially uncapped cells. But since there are only eleven frames in the whole brood nest, it is not so much of a task to examine the combs individually, and therefore it is done more often, with better results.

Walter H. Hull,
Virginia.

News from the Auxiliaries

By Eva Stewart,

Indiana.

THE Third Annual Convention of the Women's Auxiliary of Iowa State Beekeepers' Association met in conjunction with their annual convention and Short Course, November 16-19, 1937. The meetings were held in the Memorial Union on the Iowa State Campus.

Mrs. Henry Ness gave some very interesting facts concerning the number of requests for honey recipes she has broadcast during the Homemakers' Half Hour over radio station WOI.

Prof. C. A. Iverson gave a most interesting demonstration on the making of the Milk-Honey Candy Bar which has been perfected at Ames in the Dairy Industries Department. They use 108 pounds of honey in one batch which will make between 1200 and 1500 bars. It is a very wholesome food as it contains nothing but condensed milk, honey and salt. There is an equivalent of one cup of milk in one bar.

Mrs. John Jessup gave a very interesting report of the National Auxiliary Meeting held at Washington.

The luncheon on Thursday, November 18, was held in Great Hall and was a joint horticultural luncheon. At the officers' table there were 2½ oz. jars of honey for each one. Every lady at the officers' table received corn-husk dollies which were made by one of the members of the Federated Garden Clubs of Iowa which met at the same time. J. N. "Ding" Darling gave a talk on "The Unharnessed Forces of Conservation" at this time.

The officers of the past year were re-elected at this time. They are Mrs. G. N. Polhemus, of Ames, president; Mrs. Reva Todd, of Des Moines, secretary; and Mrs. F. B. Paddock, of Ames, treasurer. Plans for next year's State Fair were made. That is the major project for next year.

* * *

Mrs. Polhemus also sends in a suggestion which one of the women made at the convention. She said for a long time she had used liquid bluing for bee stings, just touching the sting with the cork of the bottle.

* * *

Wisconsin.

The annual meeting of the Ladies Auxiliary, of Fox River Valley, was held at Hartford, Wisconsin, November 4, 1937. A honey ice-box cookie

was the contest and eleven entires were made. First prize of two dollars went to Mrs. A. E. Wolkow, of Hartford; second prize of one dollar and fifty cents went to Mrs. A. Kuster, of Carcarna; and third prize of one dollar went to Mrs. C. Meyer, of Appleton.

Reports on the auxiliary booth at the State Fair showed that the booth was a big success. At the booth the ladies sold drip-cups and 100 Honey Helpings.

An election of officers was held. Mrs. Frank Ortlieb, of Clinton, was elected state chairman and Mrs. A. J. Schultz was re-elected secretary-treasurer.

* * *

Michigan.

The Michigan State Beekeepers Association held a series of district meetings—on Wednesday, December 8, 1937, in Dearborn, on Thursday, December 9, in Saginaw, on Friday, December 10, in Grand Rapids. There were both afternoon and evening meetings on all three occasions.

Mr. V. E. Mock, Michigan's chief inspector, showed his colored movie of the display of honey collected from different parts of the world by the state. This movie was taken at the International Beekeepers Meeting held in Washington, D. C.

On Sunday, January 9, 1938, the Wayne County Association will hold its regular meeting. The most important business is the nomination of officers. All members are requested to be present.

Mrs. Polhemus sends in a recipe which she gave at the Iowa meeting.

Apple-Sweet Potato Surprise.

2 lbs. of sweet potatoes
3 tablespoons honey
2 tablespoons butter
1 lb. sausage - pork chops
½ cup water
1 teaspoon salt
Apple rings
Raisins

Parboil the sweet potatoes for ten minutes or until they will peel readily after peeling arrange in the center of a well greased baking dish. Arrange sausage or chops around the edge. Boil together honey, water, and salt and pour over the potatoes. Cover and bake for 30 minutes. Remove. Cover the entire top with apple rings and fill the centers with raisins. Return to the oven and bake

for 10 minutes longer or until the apples are brown and tender.

If any of you readers have favorite apple recipes containing honey send them to me at Newport, Ind., to be used in a future issue.

—ABJ—

Pictures for Everybody

The Cover.

P. N. Townsend, of Lebanon, New Hampshire, captured the cover for this month. It's not the month for a swarm, especially in New Hampshire. But what difference? It's promise for 1938.

Townsend says: "I would call the picture 'Real Boston Bees.'" Boston is known as the Hub city. These wheels are from a prairie schooner and were used in the days of oxen to take wool to Boston, one hundred and fifty miles from here. The shed in the background was made from the timbers of an old cider mill. In the early days, every large farm had its cider mill. This farm is owned by the direct descendants of the original settler. Nathaniel Storrs, to whom it was deeded by the King of England in 1761.

"Nathaniel Storrs died as a result of bee stings. His grandson, Apol Storrs, who was my grandfather, told us he remembered them pulling out the stings."

Now, if you can beat that for a picture and story, go to it. We have decided to keep the cover contest going through all of 1938 or at least until we have material enough for the remaining two places, not already filled, for 1938, and twelve new pictures for 1939. BUT ** THEY MUST BE GOOD—and unusual. We admit haste in 1938 selections. Some we would now prefer not to have accepted for the cover, so that makes us pretty apt to judge closely. FIVE DOLLARS for the selected pictures.

Inside Pictures.

For the reading pages, suitable pictures and accompanying stories, if accepted, will bring you \$1.00 for each picture and your choice of a year's extension of your Journal subscription or any one of our dollar bee books. A list will be sent with the acceptance. Try your hand.

In this issue, pictures on the following pages were taken by readers: page 13 and 14 by W. A. Dunham of New Jersey. He did a good job at the Washington Meeting; page 24, winter covers by Kenneth Maxwell Walker of Kentucky; page 25, spider by W. L. Reid, of California, and goldenrod by Paul Jones of Ohio.

Nectar Sources of the Future

By M. G. Dadant,

Illinois.

D ID you ever stop to consider what would happen to the honey and bee picture if sweet clover should pass out in farm crop rotation? If farmers were to substitute soybeans and some other non-honey producing legume like lespedeza? Well, It would be too bad for our present big honey producing areas. The east and west coasts and the south might not be too hard hit but it would take the heart out of the volume honey production in that great central area from the Cascade Mountains to the Appalachians, for in that territory, sweet clover reigns supreme.

Yet, have we any assurance that we are safe from such a change? Where are the big sweet clover fields of Alabama? Largely gone. Sugar

the last two decades. Secondly, by selection among plants. For all we know one sweet clover plant may be twice as heavy a honey producer as its neighbor. Third, develop plants which will be good for bees as well as for general agriculture.

Going back to the introduction of new plants which fit into the agriculture program, we have had no plant introduced since sweet clover which was as satisfactory for honey production as the sweet clover. Varieties of alfalfa have shown some promise. The Sainfoin of France may offer possibilities. But vetch, soybeans, cowpeas, lespedeza, and other legumes now appearing in the crop rotation scheme in different sections of the country have been

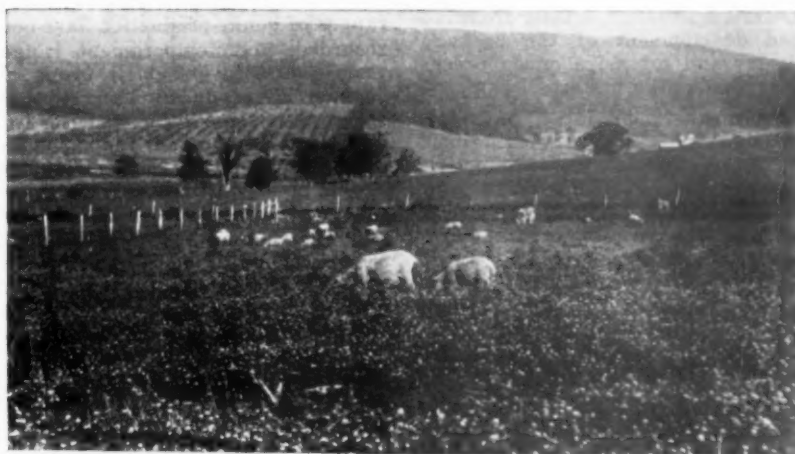
disappointing as honey producers.

In selection of plants, perhaps agriculture has unwittingly worked with the beekeeper. Prof. Vansell, of California, has shown that bees visit most readily those blossoms which have a high sugar concentration in their nectar. Naturally the seed setting in those plants is greater, and by the very nature of this, such plants become the seed producers for ensuing years, and we have developed plants which are good honey producers.

But the field is barely touched. If we can help this natural selection by careful work in testing the sugar content of the flowers in a field of alfalfa, for instance, is it not possible that we would find a very few plants in a field which were much higher in nectar content than the rest? Now if we were to select the seed carefully from these few plants, and continue our work of reseeding and selecting over a series of years, might we not find that we had a superior nectar producing strain of alfalfa, which might be just as good for hay, and much more useful to the beekeeper?

Dr. Vansell does find this true with plums. Some varieties of plums show a sugar content of only 10 per cent in the nectar while other varieties in the same soil and under the same climatic conditions show as high

Now, white sweet clover has taken the place of white Dutch. When will it too go in turn? What will take its place? Is beekeeping in danger?



Fields of clover like this were the delight of our granddads to whom a white Dutch super of honey gave the standard product of their day.

beets are replacing part of the acreage in the irrigated sections. Crop rotations change the phase of agriculture in some sections from year to year. Red clover is almost a thing of the past. Its seed is now worth \$25.00 a bushel. Yet 25 years ago the farmers would have derided you had you even suggested the waning of red clover plantings.

I think it behooves the beekeeper to be on his toes to the problems of honey plants. And this can come in three ways. Find other plants which fit into the agricultural program, honey producing plants, as sweet clover has fitted into the program in



as 28 per cent sugar content. You can readily see how important to the beekeeper it would be if all alfalfas had a sugar content of 25 or 30 per cent instead of 10 per cent.

And how much more important, if we could discover in a field of soybeans or a field of corn, a few specimens which showed enough sugar concentration in the blossoms to attract the bees for honey. What a vast field is open to us in the whole realm of agriculture. In some instances our efforts might fail because such a plant developed might be less valuable for general agriculture, but in other instances we might be successful.

The third point mentioned is in development; changing the general structure of a now existing agricultural plant which has nectar, but which the bees cannot work. This is best illustrated in common red clover which has a relatively high sugar content in its nectar, but which the bees cannot work except under abnormal conditions of drought, when the corollas may be short enough for the tongues of the bees to reach.

Red clover is almost a necessity in some sections where sweet clover does not lend itself to crop rotation plans because of deficiencies of soil or climate. Red clover is rapidly fading out of the picture on account of lack of pollenizing agents. Seed prices are almost prohibitive. But make a red clover which honeybees can reach and pollenize, and red clover will rapidly resume its place in farm crops.

Some work has been done along this line. Dr. Sofka, of Czechoslovakia, has spent a number of years crossing alsike, Dutch white and red clovers, with this very thought in mind. You will all probably have read of the joint experiment of the Iowa State College at Ames and the American Bee Journal with this clover, a small quantity of the Zofka seed having been secured from the originator. I have had opportunity to see the plot growing, and to see how heavily the bees worked upon it. Also to note the heavy setting of seed from these plants. In fact the experiment is so encouraging as to make one want to build castles in the air on the possibilities of this new plant cross. But we have still to determine just what its reaction is going to be to the various types of soil on which it is going to grow, and also whether or not the plant will withstand the rigorous winters it will encounter in the midwestern United States.

If it is successful, then we will have another honey plant to windward, should the farmers through some now unaccountable reason, abandon sweet clover in crop rotation.

Other clovers may enter into the

picture. Ordinary Dutch white clover is a splendid honey plant, but the dry seasons almost obliterate it and we have to wait two years for the new plants to become nectar yielders. Similar pasture clover plants are being tried. Perhaps someone will find one of them, equally as good for pasture and honey, which will survive our drastic winter and summer conditions.

Some argue that beekeeping is on the wane, that we have now about

reached our apex as a honey producing country. I disagree. If we do what we should, if we encourage our investigators along the line of honey plant and honeybee breeding, if we ourselves enter wholeheartedly into such a program, with both our moral and material support, I see no reason why American beekeeping should not continue the forward progress shown since Langstroth first pointed the way with his movable comb hive.

—ABJ—

Selection and Breeding Bees For Temperament

By C. H. Gilbert,
Wyoming.

THE selection and propagation of better queens is now largely in the hands of southern queen breeders, a situation arising from the rapid development of the package industry and extensive queen breeding in the southern states.

The northern producer, having a very short season and being primarily interested in the production of honey, finds it convenient and economical to purchase southern bees and queens. There are many distinct advantages to this system, but there are also some disadvantages. Queens in northern apiaries whose progeny are gentle and have fine production records are seldom selected for breeding purposes. Apparently a queen having a very fine record under southern conditions may become a very ordinary one when placed in a northern apiary. Bees, reputed to be of excellent temperament in southern apiaries may become extremely cross under northern conditions. Wholesale production of bees and queens may not be conducive to careful selection of breeding stock.

The package bee industry has become so large that many shippers do not produce their own queens. Some producers, unable to supply the demand from their own apiaries, ship packages produced and packed by neighboring beekeepers. Other producers never market packages under their own name but supply larger or better known shippers. Thus the buyer may find a surprising lack of uniformity in the packages he receives from the same shipper.

During the last few years at the

Wyoming Experiment Station the lack of uniformity has been very striking. In groups of packages wide ranges of honey production have been recorded, and temperament ranged from gentle to extremely cross. If commercial producers received bees as cross as some received here, it is doubtful if they could remain in the business. We have lost several desirable apiary sites, have been forced to move entire apiaries during July and August, and now find it difficult to secure suitable locations. In order to avoid further difficulty we found it necessary to kill 45 cross colonies the fall of 1935, 55 in 1936, and 50 in 1937. These colonies, manipulated with difficulty during the spring and summer, were destroyed as soon as the honeyflow was over.

The situation is not local, for in recent years several Wyoming people have been attacked by bees; some received medical aid, and one boy was stung to death.

During the past four years at the Wyoming Experiment Station we have purchased packages from ten producers. Of these six groups were found to be of satisfactory temperament, while four groups were so cross as to make manipulation extremely difficult.

In order to work some of these colonies, the protection of very heavy gloves was essential. Several makes of gloves were tested, but only those made of very heavy drill could be used. If the gloves wrinkled at the wrists, severe stinging resulted, and it was often necessary to wrap the wrists with cloth before putting them on. Two suits of white coveralls

(the hand holes in the side sewed shut) were worn over an ordinary dress shirt, riding pants, and high top shoes.

In apiaries where colonies had not been opened for two weeks bees would meet the operators 200 yards distant, and sting him severely before the necessary armor could be adjusted. Hundreds of bees would continually fly at the veil, arms, and shoulders during manipulation. When leaving an apiary located near a farm house or livestock pasture, it was desirable to kill as many angry bees as possible. This was accomplished by igniting an oily cloth held in an old-fashioned, long handled bread toaster. When the torch was held high in the air, most of the bees would fly into it and be cremated. The method was very successful and reduced the danger to nearby people and livestock.

Not all the colonies in each apiary were cross. Some colonies could be worked in comfort and without gloves. Record cards on each hive permitted identification, and a defi-

nite order of manipulation was established, working gentle colonies first.

Beekeeping loses its fascination and becomes downright drudgery, when bees are as cross as those just described. Under such conditions the northern producer finds difficulty in holding desirable locations, is forced to work bees under most trying circumstances, and is always mindful of the danger to livestock and persons passing the apiaries.

There must be something wrong with the methods of selection and breeding, when a large percentage of the bees observed are found to be extremely cross. Cross bees are a detriment to the industry. They can be eliminated if breeding queens are more carefully selected for temperament.

Some southern breeders may not realize the seriousness of the situation. They may think the problem is a northern one. However, since the queens are selected and bred in the south, the solution to the problem will probably be found there also.

—ABJ—

Cooperating With Corn Syrup

By L. T. Floyd,
Manitoba.

SNAPPY title isn't it! Well don't stop reading on that account. The so-called depression was just the opposite for the bee business in the province of Manitoba in Canada. About the time the depression began to hit hard we were fortunate in having at the head of affairs the late Hon. J. D. McGregor and a greater bee enthusiast it would have been hard to find.

On one of his visits to provincial institutions he noted that corn syrup was the principal sweet food served to the inmates. He drew the attention of the Premier of the province to this matter calling the premier by his first name, he said, "John, do you know that your purchasing agents are supplying these people with corn syrup made from an imported product, while many carloads of honey, produced right here, are seeking a market at the same price." The premier assured him that he knew nothing about it, but would make enquiries.

A few days later purchasing agents were ordering honey. All

provincial institutions had honey substituted for corn syrup on their menus. The relief organizations then began to develop tremendously until in the city of Winnipeg several thousand single men and women were being fed. Relief organizations are however backed by Federal as well as provincial funds.

At one dining hall where honey was served once a day as much as 600 pounds per meal was consumed. It was served once a day. With these institutions corn syrup was not entirely crowded out. The corn syrup interests had good salesmen and it was noticed that a number of the customers reported they they did not like honey so corn syrup was never entirely taken away. It was here that the cooperation came into effect.

It can be easily understood how fast empty cans would accumulate at these dining halls. It cost money to truck them to the dump. It however was soon discovered that these cans, both honey and syrup, could be sold to those who called with their truck loads of honey and used again.

A nickle a case was charged for honey and syrup cans unwashed and there was no trouble to sell them as fast as they accumulated.

About this time the two corn syrup companies operating in Canada developed extensive radio programs and the public was invited to buy a can of syrup, remove the label and send it to headquarters where attractive premiums could be secured. One honey man when he took home a truck load of cans at once became a very interesting individual to all the boys in the neighborhood. The boys offered to wash the cans for him if he would let them have the labels. This happened in the city and these boys attended a large city school. The boys who were fortunate enough to locate these cans saved all the labels and traded with the other boys for anything they had to offer.

This one secured 400 cases of cans, enough to take care of a carload of honey. The lithographed honey pails in general use were selling at 75 cents for a case of six. He got the syrup pails at five cents a case, the boys washed them for the labels, he filled them with honey and sold them back to the relief at the going price for honey.

It can be readily seen that here was one honey man who had no complaint because the relief bought part syrup. The corn syrup people must have wondered why so many ten pound labels were sent in from this particular district.

This fine market for honey is now slipping and as far as the relief is concerned promises to soon become nonexistent, because of good crops and better times. That is why I consider it safe to tell the above story. The public institutions, such as prisons, mental hospitals, blind institutions, old people's homes, etc., are still among our best customers but there are no corn syrup pails to be secured at these institutions.

—ABJ—

That Balsam Wool Pack

Relative to the article "Balsam Wool Two-Colony Pack" which appeared in October 1936, I should have checked the article after it was published but did not do so. Since then we have had to refer beekeepers to it and it has been called to our attention that there is a mistake in the table of measurements which gives the width of the two sheets of tar paper, sisalkraft or fibreen, as 23 inches with a length of 4 feet 6 inches. This is wrong. The width should have been 36 inches. A special 36 inch wide waterproof tar paper is procurable and so beekeepers should have no trouble in getting it. The balsam wool layer, however, is 33 inches. Beekeepers who are interested in this pack should make note of these corrections.

Erdman Braun,
Brandon, Manitoba.

Profit in Section Honey

By Walter H. Hull,

Virginia.

FOR several years past the supply of section honey has not been equal to the demand. Two years ago the shortage had become so pronounced that Mr. Clay, of the Bureau of Markets, expressed a fear that this form of honey would pass out of existence unless something was done to save it. The trend since then seems to have justified his fear. At least, the production has continued to decline, although this might be accounted for by the fact that weather conditions have been unfavorable during the past two years. Yet we have a definite trend toward shifting to extracted honey production, and a corresponding dearth of comb. The basic reason seems to be that most beekeepers believe extracted pays

this feature worth considering, especially for the producer who sells his crop locally. Note that this advantage in section honey offsets in some degree, though not entirely, the larger per colony production of extracted.

The cost of producing section honey is approximately:

Section—1 cent.
Foundation—1 cent (full sheets)
Folding sections and putting in foundation— $\frac{1}{2}$ cent.
Cleaning and grading— $\frac{1}{2}$ cent.
Wrapping (including cost of plain wrapper)— $\frac{1}{2}$ cent.
Shipping case— $\frac{1}{2}$ cent.

This gives us a total cost of 4 cents per section to be added to the cost of producing the honey. These are list prices.

On the same basis, the cost of the

one pound jar for extracted honey is 4 cents. Extracting, processing and bottling cannot possibly be figured at a cost of less than one cent, especially when the processing and bottling is done with equipment usually available to the individual producer. The cost of label and putting it on will add another half cent, making the cost of one-pound jar of extracted honey $5\frac{1}{2}$ cents exclusive of the cost of producing the honey. Note that this still further offsets the lower production cost of extracted honey as a result of higher average yield per colony.

Nor is that all. We have already accounted for the cost of section and foundation in producing comb honey, but we still have the frames and foundation for the extracting combs to be accounted for. It may be argued that the inside furniture of a comb honey super would offset the cost of extracting combs. It might in part, but not wholly. There is the cost of extractor, tanks, and other equipment necessary for the production of extracted honey that must be accounted for. The extent to which this would offset the cost of inside furniture of comb honey supers would depend somewhat on the extent of one's extracted honey production—that is, the number of colonies served by one extracting outfit. There might be enough left over to pay for the frames to go in extracting supers. But in a general



T. C. Asher, Brookneal, Virginia, taking off honey in one of his 43 apiaries.

better. Does it?

In getting at relative costs of production we can leave out the cost of maintaining the bees, since they must be maintained in any case. For convenience we will compare a first grade section of comb honey with a one-pound jar of extracted. During the past year these two items have been selling at the same figure—15 cents, wholesale. Previous to that the jar was 14 cents. And at the present time the section is making a delayed jump toward 16 2-3. It is safe to say that as a rule the section either leads the jar in price by about 1 cent, or, when sold at the same price, is enough easier to sell to make



A helper, loading honey in one of the Asher apiaries.

way it is safe to say that the cost of foundation for extracting combs should be added to the cost of production, when comparing extracted honey with comb honey.

Again using list prices and round numbers, which are exact enough to give us a fair comparison, the cost of foundation for extracting combs in a full depth extracting super, including the work of putting it in, and whatever wiring was necessary, would be at least \$1.00. But this, you may say, is a permanent investment. Well, how permanent? Can you make your extracting combs last more than ten years in good condition—the average life of all combs? And what of the cost of carbon disulphide or paradichlorobenzene necessary to protect them from moths? Whatever the cost of maintaining extracting combs, it must be charged against the higher average production per colony of extracted honey as compared with comb honey.

That makes three definite and considerable items of expense that must be taken care of by the difference in average colony yields of extracted over comb honey before the extracted can show any profit over comb. There is no way of knowing exactly how much the difference in yields would be worth, or how much extra expense it could take care of, since it varies with individual cases and from year to year in each case; but it is safe to say that the three items of expense mentioned would go a long way toward wiping out the advantage of higher average yield of extracted honey.

And when we add the fourth item, not applicable in every case but in a great number of cases, i. e., the increased difficulty and expense of combating American foulbrood when producing extracted honey, the ap-

parent advantages of this business over comb honey production have pretty well vanished into thin air.

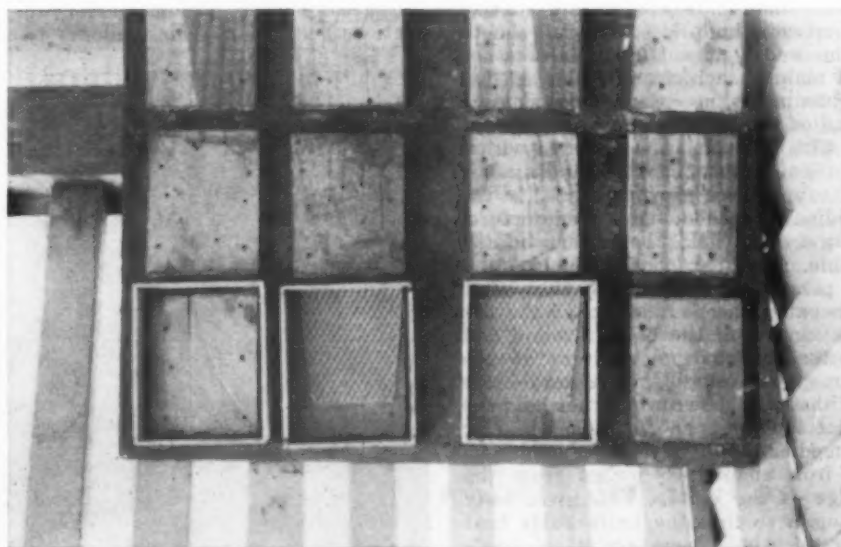
Note also that as the net profits from the two branches of honey production tend to become more equal a further charge must be made against the extracted business in that a larger volume must be produced to yield an equal profit. This involves greater cost for handling, greater cost for containers, and higher selling cost, since more must be sold. These last two items in particular should be given careful scrutiny before deciding that extracted honey production is more profitable than producing comb honey.

If section honey is to be produced at a profit it is evident that the loss resulting from unfinished sections must be kept down to a minimum. One mistake that the novice and some more experienced beekeepers often make is in assuming that bees will work as readily on a small strip of foundation as on a full sheet.

During a good honeyflow their reluctance to attack wide open spaces

in the super is not so apparent, although we cannot say that it does not exist. But in a poor season, such as this of 1937 has been in many localities, with honeyflows barely heavy enough to set the bees at work in supers, we have inescapable proof of their preference for foundation and plenty of it. Sections from which the foundation had fallen out or dropped to the bottom were left entirely bare by the bees, while those in which the foundation remained were completed, in some cases nearly all of them grading No. 1. This happened not merely in one or two supers but in many, and in apiaries widely separated.

These sections that the foundation falls out of are usually a dead loss, whether left bare or filled with cross combs, since they are not in very good shape to use again. That is only one of the losses that must be avoided if section honey production is to pay a profit. And how can these various losses be avoided? Let's get



Henry Weatherford, Extension Specialist for Virginia, using a rotating board to fasten starters in sections. The board sets flat on the table, is pivoted in the center and after fastening the top starters in 32 sections, he swings the board around, and fastens the bottom starters, all at one sitting.



With starters cut slightly wedge-shape, there is no danger of the lower corners of the starter coming in contact with the sides of the section. By making each cut diagonal, little trimming is needed to get this result.

down to cases and see how it is done by men who are doing it.

One such is Henry Weatherford, Department of Agriculture Bee Extension Specialist for Virginia, and an extensive beekeeper himself. He has devised a handy jig for his own use for moistening sections. It consists of an ordinary honey pail with valve stem from an old automobile tube inserted near the bottom. In cutting out the valve stem he left a little of the rubber around it to serve as a gasket. Then he took the nut off, made a hole in the pail and inserted the valve stem from the in-

side, tightened the nut down on the outside. The tube from an old tire pump screwed onto the valve stem completes the jig. The sections are laid on edge with V-grooves in line and the small stream of water from this tube passed along each line of grooves. When not in use the tube is hooked onto the edge of the pail with a wire hook, which stops the flow. This practically does away with all breakage, whether sections are folded by hand or with a press. The press does a better job.

If you are using open-top section holders and want to use full sheets of foundation it is practically necessary to use a press, since the sections must be folded square and kept square in the supers. A smaller beekeeper in this locality uses the plan shown of cutting foundation slightly wedge-shaped so that the corners will not come in contact with the side of the section even when it is out of true. These pieces of foundation seem to fill the section fairly well, and the bees work on them readily, producing first grade honey whenever the honeyflow permits; yet they are really little more than half sheets, and so cost correspondingly less than full sheets. The wedge-shaped effect is obtained by making each cut on a bias, so that trimming is necessary only at each end of the original sheet.

This foundation is fastened with a hot knife, the board leaning against a support as shown, which is the ordinary method. Mr. Weatherford, however, lays his board flat on the table. The board has 32 blocks, and a pivot in the center so that after fastening the foundation at the top he can swing the board around and fasten the bottom starters at the same operation. An ordinary knife of the type shown would not hold the heat long enough for this job. He remedied this by riveting a solid strip of iron about two inches from the edge of the knife. This gives body enough so that the knife holds heat for the whole operation at one heating. He hauls the supers around to outyards and rarely loses a section by having the starter fall out.

It is noteworthy that Weatherford and T. C. Asher, who has been a commercial honey producer for 30 years or more and has upward of a thousand colonies of bees, both use a section holder with top bar, protecting the section on all four sides and holding it square, thus permitting the use of full sheets of foundation with no danger of buckling. The sections are put into section holders before the foundation is put in, and not taken out until filled with honey and ready to clean and pack. The 4-sided section holder tends to protect the surface of the section so that it need not always be thrown away if unfilled at the end of the season.

Mr. Asher, who is also president of the Virginia Beekeeper's Association, produces section honey on a conditional basis, so to speak. He uses extracting supers until the beginning of his main flow, which comes about July 1. Then he puts on a limited number of comb honey supers. If the flow fails to materialize as it should, for section honey production, these section supers remain in the store room ready for the next year. The way he fastens foundation into them there is little danger that any of it will fall out as a result of being kept over winter. He cuts the starters to fit snug on three sides of the section, leaving only a narrow space at the bottom, and pours hot wax around those three sides.

This method of fastening would not be practical with the open top section holder, for it is absolutely essential that the section be held square.

Another big time Virginia beekeeper who produces section honey in volume is Chester Bass, with over 1000 colonies and life-long experience, having been born and brought up in the business. A few years ago he gave up using bottom starters in sections because of their tendency to

sag sidewise. He fastens his foundation at the top only, using a hot plate machine. But, like the others, he favors the four-sided section holder, and is re-working his equipment as fast as possible to provide this feature, which will permit a closer fitting foundation and if necessary fastening at the sides as well as at the top. He produces section honey exclusively.

These are some of the methods by which men who are masters of beekeeping hold the loss in section honey production down to a minimum and make the business pay. It may be merely a coincidence, or it may not, that Bass is an expert mechanic and millwright, Weatherford has pronounced mechanical skill, and Asher is a radio expert. But there is nothing mysterious about their success in producing section honey. In a sense, it is not even a question of good beekeeping, since bees must be kept well in order to produce a profitable crop of any kind of honey. Aside from this necessary skill in keeping bees, the secret of successful production of section honey would seem to consist in a general way of simple arithmetic and mechanics.

—ABJ—



Winter Covers

ALTHOUGH I am only a beekeeper of four years, I think others may be interested in the winter covers which I have been using with success. The picture shows a part of my small apiary and the covers used during the winter of 1934-35 and since.

Sheets of galvanized sheet metal are folded and crimped at the corners to make a box without top or bottom. These sheets are 96 inches by 30 inches and allow a clearance of about

two inches for the packing. Be careful not to stuff the packing too far down in the front to block the entrance. [Use something to cover the entrance.—Ed.]

Each sheet of metal will make three covers which are cut at the corners so that the sides may be folded over and these will telescope down over the main box. These make ideal packing cases and will not allow rain or snow to wet the packing. I find

straw and newspapers efficient. They cost ninety cents each per sheet and make the cost per colony about \$1.20 not including labor. They are cheap because they may be used over and over, year after year, and if they are painted with good lead paint will last for years.

Kenneth Maxwell Walker,
Kentucky.

—ABJ—

Spiders Account For Many Bees



Here is a picture. An article by a contributor a year or two ago stated that spiders were not able to account for many bees. This picture shows a black widow spider in its web and a bee which she had been working on. In my own experience, I find that spiders account for a good many bees.

W. L. Reid,
California.

—ABJ—

Fastening Foundation In Section Boxes

I met a brother beekeeper who said he produced some section box honey here in Florida. During my 12 years' stay here in this state, I have never yet met what I would call a comb honey producer, it's all extracted.

This man said the most satisfactory way to fasten foundation in the sections was to paint the sides, top and bottom, with melted beeswax first and then with a warmed putty knife, press the foundation down on the waxed section. He said the foundation was so thin there was not enough wax on the surface of the section to make the thin sheet stick without the additional wax. The claim seemed reasonable.

I asked about the discoloration of the edges of the finished section. He claimed that all added wax was covered by new wax and would not show, and that part of the comb was never removed from the section, because the consumer would never

run the knife that close to the inside edge of the section when cutting the comb out of the box.

His main contention was that the added wax along the surface inside the section afforded a supply of wax at that point for building comb and caused the comb to be attached all the way down the sides of the section and more of them would also be fastened to the bottom of the section as well. I do not know how well founded his claim is, as I have not had any occasion to try it, but it looks reasonable and I give the idea for what it is worth.

If that is the result with section boxes, why not try it out on brood frames? Would one expect to secure combs attached all the way to the bottom bar? Think I shall try it out, sometime.

It is claimed, and the claim is well founded, that the best place to get combs attached all the way to the bottom bars of brood frames, is to have the foundation drawn in a second story. Perhaps heavily waxing the bottom bars would result in good combs drawn in the chamber below.

Alfred H. Perring,
Florida.

—ABJ—

Goldenrod in Southern Ohio



Paul Jones, of Portsmouth, Ohio, sent us a picture of goldenrod from southern Ohio. There are many goldenrods. Over eighty species are known and all but three or four of them, according to Frank Pellett's "Honey Plants," belong to North America. Some species are adapted to nearly every condition from Canada to Mexico and from the Atlantic coast to California. There is a wide difference in the value to the beekeeper and it is difficult to estimate the value of reports which are received which with the exception of a very few species, indicate any surplus honey from goldenrods. In restricted local-

ities they are evidently the source of pollen and nectar. They add to the beauty of fall. They seem to be of the most value to the beekeeper of the North and Northeast.

—ABJ—

Locating an Apiary

I have two apiaries located about three and one-half miles apart. One does very much better in storing a surplus than the other.

A friend of mine who operates several bee yards tells me that apiaries but two miles apart vary greatly in storing a surplus, other facts than distance from the nectar source being about equal.

Last year the bees in my home yard had to go three miles to reach buckwheat. I could smell buckwheat in the hives while they were working this flower, but they stored no surplus from it. These are just a few of the thoughts that lead me to believe the most valuable honey sources to a colony are those that are within a mile or less of the hive.

I realize that bees will frequently go great distances to reach certain types of supplies. For example, another friend of mine who keeps a few bees says that his honey gatherers will work on basswood to advantage for as long as three weeks in some seasons. He lives at the base of a range of the Catskill Mountains. Here the blossoming season at the top of the mountain is nearly two weeks later than at the foot of the range. I wonder if the fact that his bees are aided by gravity in their homeward flight is of any assistance to them in storing a surplus from a fairly distant field. If so, this factor should be taken into account when choosing the location for an apiary.

Grant D. Morse,
New York.

—ABJ—

Chevrolet Six Car And Truck

Because of the general use which beekeepers make of the Chevrolet car, they may be interested in a book, copy of which has been sent to us by the publisher, on "The Chevrolet Six Car and Truck, Its Construction, Operation and Repair" by Victor W. Page, published by the Norman W. Henley Company, New York City, net price \$2.50.

There is a "Ford" book published by the same company. They give complete operating and maintenance instruction, in simple language including 1937 improvements and changes, as well as features of the earlier models. Suggestions are given for driving and upkeep, trouble shooting on the road, in the shop, overhauling, location of defects in carburetion, ignition, lubricating.

Old Bees Not Good Nurse Bees

By Alfred H. Pering,
Florida.

WRITERS for beekeeping magazines seem prone to confine themselves to accounts of successes in beekeeping. I believe that accounts of failures would also help, so here is one.

Recently I found a strong colony hopelessly queenless. Thinking they were strong enough to rear a queen I inserted an empty comb in the hive from which I would like them to have eggs from which to rear the new queen. As soon as there were plenty of eggs in this comb, I put it in the queenless colony. In due time I found three queen cells.

I gave them no further attention until time to examine the hive to see if the new queen had mated and was laying. Very much to my surprise, I found dead shrunken remains. Not one of them had emerged and only a part of the worker cells had been cared for and brought to maturity. So I then gave them a comb of brood in all stages to see what they would do. They did not even care for the unsealed brood and made no attempt at queen cell building. I united this colony over a newspaper with a queenright colony. Two days later, I found that the brood was being properly cared for. The bees in the queenless colony were too old for nursing.

In my early experience I tried making increase by filling a hive body with empty combs or using full sheets of foundation and then set a strong colony on a new stand, placing a new body with combs in its place to catch the field bees. I gave a queen or a comb of eggs and young brood from which I expected them to rear a queen. Colonies made in this way were seldom of any value. The queens were frequently lost and those reared were inferior. It is not a successful way to make increase. It is better to divide the bees and brood equally and leave the old queen with the field bees. The old field bees are the ones that play havoc with the new queen you are trying to introduce.

Another experiment with which I had better success was to place the empty combs on top of a strong colony and in a few days set the colony off in place to catch the field

bees as before. The hive body of combs on top for a few days would catch a lot of young bees and then queen introduction is more successful. There were young bees to look after the queen, feed her and nurse the first larvae. Even that method, however, was not so good.

I like better to collect a hive body full of combs of brood, set this on top of a strong colony until the brood collects the bees from below, then look it over for queen cells and remove them, making a new colony of this part, setting it where there will be no old bees to enter. Then introduce a new queen. You will have

young bees from the old colony and by the time the queen is out and ready to lay, you will have a good strong colony of young bees.

Combs of brood without bees may be collected from hives that can spare them. Such a brood chamber full of combs of brood may be left on a hive just overnight, so there is hardly time for the bees from below to start queen cells. You are not bothered with having to hunt for cells and destroy them. Using this method, queen introduction is then almost certain.

—ABJ—

Institute a Long Step Forward

I would like to give my heartiest cooperation to American Honey Institute for the fine purposes and advantages which it offers. It is a step forward and if every beekeeper will help, all will benefit. It has had many obstacles and deserves our gratitude for the fortitude with which it has stuck to its purpose in spite of everything.

L. L. Sherman,
Washington.

—ABJ—

One Hardware Man Who Does Keep Bees



THOSE of the St. Louis area who know Phil Hankammer of the Hankammer Hardware Company, will recognize his genial smile in this picture. Phil has become a beekeeper in every sense of the word. He and his brother, George, operate quite a number of colonies in several yards. Not only do they deal in bee supplies

and honey containers, everything the beekeeper needs at their store, but they understand the language of the beekeeper too.

Honestly, Phil did not give us a cent for this boost. He deserves it. Few hardware men will go as far as this and really be interested, yet many of them sell bee supplies.

All Around the Bee Yard

By G. H. Cale

WATER at outyards is always a problem unless the yards are located where there is a constant natural supply of fresh water. Yards where there are running streams or pools of water constantly full, with brookside sand or gravel continually moist at which the bees may work without discomfort, are ideally located. Those that have no natural source of water, but have to depend on water troughs and other receptacles on the farm, are liable to get the owner of the bees into difficulty.

A call came last summer from one of our outyards announcing that a neighbor, whose presence was not suspected, as his house was in an out of the way portion of the surrounding timber, was complaining that bees, recently located, were giving them a great deal of trouble. How to stop it?

Large metal containers were placed in the bee yard with water and float sticks. To one stick in each container was tied a ball of cotton soaked with anis oil obtainable at any drug store. This was an immediate attraction to the bees. The trouble at the neighbors was reduced to a point where no further complaints were received. Try it sometime!

Bees this year were gathering pollen from dandelion on November 9th. Up until the 1st of December there was practically no let-up in the seasonal activity of bees. They worked in the fields late on scattering bloom and had summer-like conditions. Then suddenly winter came. It has been winter ever since and yet not a severe winter as far as temperature goes to date (December 20). What lies ahead?

Remember when you sell honey that the quality of the honey, the container in which it is placed, lacked up by steady intelligent service, and a constant supply will practically win a market anywhere.

This season, needing brood combs for our large hives, we placed second hive bodies on top of the first ones and moved some of the combs from the sides of the brood nest below into the second hive bodies, alternating these combs with foundation. In the same yard were other colonies with shallow supers. The flow was poor, intermittent, and many colonies with the supers did not occupy them

well at all. However, the colonies with the combs removed from the brood nest, containing some honey and pollen and frequently a little brood, stored 80 or 90 pounds of honey in spite of adverse conditions.

This induced storage was very noticeable and the crop of the colonies so handled was larger than that of the balance of the yard. If the results in good seasons, were the same as this in a poor season, it would lead to the practice of supplying supers with combs from below, at least at the beginning of a honey-flow. If a considerable increase in the crop were noticed, the use of this bait would be worth the labor.

At least, it disproved the idea which beekeepers around us gave thought to, that there was "no nectar in the flowers." The nectar had to come from flowers. These colonies stored honey, others did not. Why?

L. T. Floyd, of Manitoba, (Provincial Apiarist) asks how we store queens to save them for a time when they cannot be used at once. Queens which come in mailing cages are placed on bar carriers nailed in Langstroth frames, with strips of wood fastened so the cages will not fall off the bars, but will be held in place in the frame. Quite a number of queens can be provided for in frames like this.

The frames are then slipped into queenright colonies at the sides, usually in place of the second comb. Two frames can be kept in a colony. The queens will be fed by the bees for about two weeks with not over a 10 per cent loss. Beyond that, the loss quickly increases.

There seems to be no injury from storage as far as egg laying is concerned. All workers in attendance on the queen should be removed from the cages when the queens are placed in storage. During the storage period, the queens become fat and ready to lay. Often they do lay on the wires of the cage and on the candy. Sometimes, when stored in queenless colonies, the workers manage to carry eggs from the storage cages to brood combs, and a small brood area results.

Bees went into winter quarters in poor condition this year. Brood rearing was reduced, or stopped altogether, earlier than usual so the clusters did not have the number of young bees emerging late that they

usually have. Also, there was a long period of time between the end of brood rearing and the beginning the winter period, so stores were reduced and bees were worn as a result.

There was a smaller amount of pollen in the hives than usual and this undoubtedly will have a tendency to delay brood rearing at the end of the winter period so the emergence of young bees will not be heavy until the spring is well advanced. In the meantime the over-wintered bees may dwindle badly, and the colonies are apt next spring to go into a tail spin in population from unusually severe dwindling.

In view of these things, we have packed our bees heavily, the first time in many years. Whether packing can overcome the deficiencies just mentioned, is, of course, a great question, but it certainly may help some. Perhaps it will be more important than in a year of more favorable fall conditions.

Death of C. H. True

A prominent Iowa beekeeper, C. H. True of Edgewood, died on May 13, 1937 at an advanced age. Mr. True would have been ninety years old had he lived until August 19.

For more than a half century he was active in the affairs of the Iowa Horticultural Society and the Iowa Beekeepers Association since its organization in 1912. He was elected treasurer at the first convention of the beekeepers organization. Mr. True also served as the first lecturer on beekeeping sent out by the Extension Service of Iowa College of Agriculture.

In early manhood he spent some years as a teacher and later gave a long period of service as a minister of the gospel, being licensed to preach in September 1868. When ill health led him to give up his profession he took up life in the country and devoted his time to fruit growing and beekeeping.

As a fruit grower and beekeeper he became widely known to the people of Iowa and as an exhibitor he was second to none in his home state. For more than thirty years he was a successful exhibitor at the State Fair, the Mid-West Show and other similar enterprises.

In recent years he has served as judge at local fairs and spent his 89th birthday judging exhibits at the Elkader Fair.

Thus ends a useful and long life. Those who knew C. H. True will remember him as sincere, honest, friendly and modest. To Iowa beekeeping and fruit growing he contributed much. Few are more worthy of a place in the hall of memory.—FCP.

The Editor's Answers

Selection of Plants for Nectar and Pollen

What fruit trees and clovers produce the most nectar and pollen? OHIO.

Answer.—by Frank C. Pellett, Field Editor. The list of plants providing honey is too long for very satisfactory discussion in a letter. The book "American Honey Plants" with 400 large pages is entirely devoted to this subject and it may be possible that you can find it in your local library. Among the fruit trees, nearly all of which are good honey sources, I would mention especially the apple, plum and cherry. All the clovers are sources of honey, but in Ohio the white sweet clover, the white pasture or Dutch clover and the alsike are a source of most of the surplus. Among the common shrubs, the Indian currant or coral berry is one of the best. Among the weeds, some of those which are the worst weeds are the best honey plants. This is particularly true of the Canadian thistle which is so very difficult for the farmer to eradicate, and yet which produces a large amount of very fine honey.

—ABJ—

Which, Comb Honey or Extracted?

Which is more profitable, the production of comb honey or extracted honey? WISCONSIN.

Answer.—Comb honey is very difficult for the beginner to produce. Extracted honey is easier. Probably comb honey sells faster than extracted honey, but you can't get as many sections of comb honey as you can pounds of extracted honey, at least until you become quite skillful. For a while you will get more off-grades of comb honey than you will No. 1 or fancy.

On the other hand, the equipment for handling extracted honey is quite expensive. You would have to have an extractor, and for a few colonies that is a heavy investment. Why don't you try cut comb honey? Write to James Hilbert, Traverse City, Michigan, to get his literature about cut comb honey. Tell him we mentioned you to him. In that way you can produce a fast selling comb honey without the equipment necessary for section comb honey production.

—ABJ—

Bachelor's Button As a Honey Plant

I would like to know if the old-fashioned bachelor's-button is a honey plant. I have noticed my bees working on it a great deal. One year we had two hives of bees at home which filled a super full of gray honey which had a very good flavor. Do you think it came from the bachelor's-button? OHIO.

Answer.—by Field Editor Frank C. Pellett. In regard to the bachelor's-button, will say that it is apparently one of the best of honey plants, and I think the only reason we do not get a substantial amount of honey from this source is because there are seldom enough of the plants to make much of a show. You mention getting a super of

honey and I am wondering whether there could possibly be enough of the bachelor's-button in your vicinity to make that much honey. If there are enough of the plants, it might very well, as I regard it as an abundant source of nectar.

—ABJ—

Honey Sources

Do bees get honey from sugar cane? Of what value are coffee trees? Is there pollen and honey in mulberry trees? Is Porto Rico a good honey country? WASHINGTON.

Answer.—by Frank C. Pellett, Field Editor.—Bees do not get honey from sugar cane although perhaps at times they do pack some of the sap when the stalks are cut.

The coffee tree is reported to be a very good source of honey, and probably in South American countries a large amount is secured from that source.

The mulberry tree provides only pollen and perhaps, occasionally, a little honeydew, but honey is not to be expected from mulberries.

Porto Rico is a country where large amounts of dark honey are produced, and since Porto Rico is a territory of the United States, it comes into this country duty free. However, it usually sells at a rather low price.

—ABJ—

Cross Bees

I have ugly bees and I have handled them under all conditions. What makes bees cross? How do you prevent it? MICHIGAN.

Answer.—Nobody knows why some bees are cross and some are not, any more than we know what causes the difference in the disposition of human beings. We have found that it is possible to change the temper of any colony of bees by the introduction of a queen from a more preferable source.

—ABJ—

How to Clip the Queen

I would like to know how to take a queen from a shipping cage and clip her wings. MICHIGAN.

Answer.—The best way to take the queen from the shipping cage to clip her wings is to take the cage with bees in a small room with well lighted windows, and release the bees on the window glass. Then you can pick the queen up by her wings, set her legs over the tip of the finger, and clip her wings with scissors held in the other hand. She has no chance to get away from you, when thus confined.

—ABJ—

"Temprite" for Packing Bees

In your March, 1937, issue of American Bee Journal you give a table on the different value of insulating materials listing "Temprite." Where is it made, and would it be suitable for double walled hives? Are double walled hives with food chamber rims considered expensive when one has the machinery to make his own? BARRIE, ONTARIO, CANADA.

Answer.—by Dr. R. L. Parker, Kansas. The insulating material known as "Temprite" is made by grinding up paper and

treating it with chemicals as a fire and vermin prevention. This was made several years ago in Wichita, Kansas. I do not know whether it is manufactured in Wichita at the present time. Materials of this nature would be suitable for making double walled hives.

Double walled hives could be made by using insulating materials other than "Temprite." Such materials in the United States are available under the trade name of "Balsam Wool" which is a product made from spruce wood, and "Rock Wool" which is a mineral product made from limestone. These two materials have nearly the same coefficient of insulation as "Temprite." Any lumber company can supply you with information in regard to these two materials.

—ABJ—

A Possible Error in Foulbrood Statistics

Much money and labor has been expended during the past few years in an effort to eradicate, or at least to control American foulbrood. What, if any, progress has been made along either line?

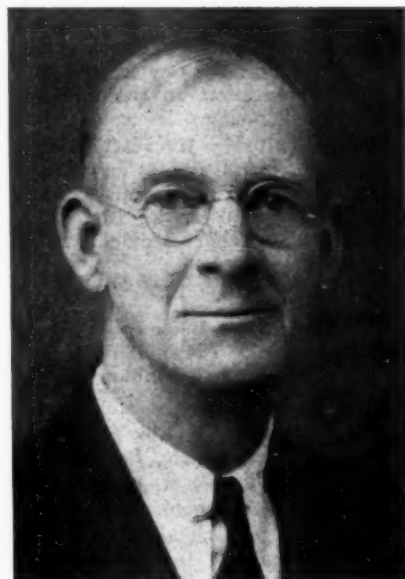
In an effort to show the progress during the past ten years, the American Bee Journal published two maps on page 426 of the September issue showing the percentage of American foulbrood in 1925 and in 1935. Presumably Mr. Dadant compiled these maps from figures furnished by the bee disease control officials of the several states and provinces. However, there is one factor which may not have been taken into account.

The map shows no reduction in the percentage of American foulbrood in New Jersey during the ten years compared. No doubt the figures are correct nevertheless there has been a material reduction in the amount of American foulbrood in New Jersey. This sounds contradictory. The explanation—the amount of funds available in New Jersey for bee inspection is inadequate to make it possible to examine all the bees in the state each year. Therefore the work is carried on where bee disease is known to exist or is suspected, as well as giving attention to calls for inspection. When one infected area is so well cleaned up that it safely can be left in the hands of local beekeepers another infected area is worked. Thus it is seen that, until all infected areas in the state have been worked, the inspector very largely is hitting the "dirty" spots. This tends to keep up the percentage of disease as shown by the figures. It is possible that the figures for some other states are influenced by like conditions.

This is not intended as a criticism of Mr. Dadant's work but to call attention to a factor which may account for a seeming lack of bee disease reduction.

Elmer G. Carr,
New Jersey.

Meetings and Events



Arthur J. Schultz, Wisconsin President.

Wisconsin President Retained.

Mr. A. J. Schultz, Art to his friends of Ripon, was retained as president of the Wisconsin Beekeepers' Association for another beekeeping year, or would one say detained? Persons who possess the characteristics of leadership often are found at the top of the heap at some time during their lives; each responsibility a stepping stone to a greater trust and obligation. Some step right on up the ladder while others choose to become more efficient and a master of the present office before grasping the next rung of success; still others prefer to cling to old friends and work along with them through the years; I believe Mr. Schultz is of the latter.

Reputed to be the largest honey producer in Wisconsin, Mr. Schultz, his wife and daughter are thoroughly honey conscious. Most any beekeepers' picnic, meeting or convention will find all three active workers. A visit to the Schultz home will store up many memories of a hospitable family of three, truly, a home where laughter, joy and friendliness abound.

So, whether detained or retained, Mr. Schultz won't complain if he maintains an office that pertains to beekeeping.

M. Francis,
Wisconsin.

Massachusetts Meeting January 6.

The beekeepers meeting, to be held in conjunction with the Union Agricultural meeting, Worcester Auditorium, Worcester, Massachusetts, January 5, 6, and 7, is announced for Thursday, January 6.

The morning session begins at 9:30. Among the speakers are J. R. Hepler, George Meigs, Allen Latham, E. R. Root. The program will continue throughout the day.

John Van de Poele,
Deputy Apiary Inspector.

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Short Course at the University of Manitoba.

The annual short course in beekeeping at the University of Manitoba, Winnipeg, will be given on January 17 to 28. About fifty lectures and demonstrations will be given, covering all aspects of the subject of practical beekeeping. The following topics are given as typical of the subjects to be discussed: literature dealing with beekeeping; beekeeping locations; Canadian beekeeping; how to begin; races of bees; extracted honey production; comb honey production; management during each season; frames and foundations, and so on.

A. V. Mitchener, Professor of Entomology, and L. T. Floyd, Provincial Apiarist, will give most of the lectures. In addition, approximately eight other speakers from university departments will lecture to the short course students.

During the last week of the course

In this department heretofore the reports of meetings which have already been held have been given a reasonable amount of space. We have been criticized many times, however, for publishing detailed reports of past meetings which do not give information other than the general facts about attendance, the speaker's names and subjects. That is usually quite worthless material to readers not members of the particular association about which the report is being made.

Hereafter, we shall not use reports of past meetings other than summarized reports of papers given before the meeting or summaries of talks by the speakers, or items of future events in the affairs of the association. We do not want reports of a general and unimportant nature. Please bear this in mind when sending material for "Meetings and Events."

Detailed statements of meetings to come with dates, places, speakers and subjects are always welcome. Even though they may have to be reduced because of the limitation of space, every effort will be made to give them advance positions.

members of the Manitoba Beekeepers' Association will meet for two days in their annual convention. The afternoon and evening sessions will become a part of the short course and will provide an opportunity for students to meet the leading beekeepers of the province.

The registration fee is \$5.00. Board and room may be obtained in the Manitoba Union, University Residence, at the rate of \$6.50 per week.

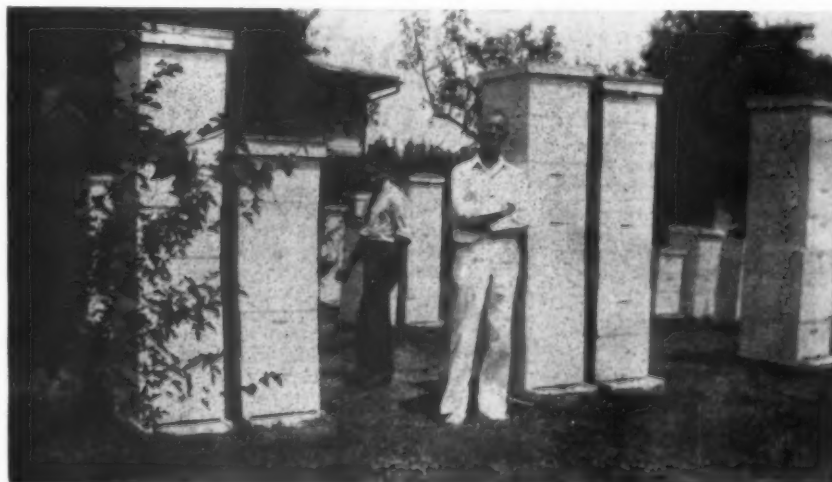
Further information may be obtained by addressing the university.

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Annual Illinois Farm and Home Week Program, January 10 to 14, 1938. Beekeeping Program, 104 Exp. Zool. Lab.

Tuesday, January 11, 9:00, "Through the Year with the Bee Colony," V. G. Milum. 10:00, "The Body of the Bee and its Adaptions," Donald T. Ries. 1:00, "Honey Plants of Illinois," Donald T. Ries. "Types of Hives and Equipment," V. G. Milum. 2:00, "Examination of Colonies"—Demonstration, Robert Beer. Honey Extracting"— Demonstration

Mr. Schultz besides his skyscraper hives (But NOT in 1937.) (Millie Francis)



tion, Charles Ater, Jr. (110 Exp. Zool. Lab.)

Wednesday, January 12, (104 Exp. Zool. Lab.) 8:00, "Fall and Winter Management of Bees," G. H. Cale, Editor American Bee Journal. 9:00, "Requeening—Why, When and How Shall We Do It," Carl E. Killion. 10:00, "Swarm Control and Extracted Honey Production," G. H. Cale. "Honey—Its Physical Properties and Care," V. G. Milum. 1:00 "Producing Comb Honey," Carl E. Killion. 2:00, "Saving Beeswax," G. H. Cale. "Bee Hysteria," Carl E. Killion.

Thursday, January 13, (104 Exp. Zool. Lab.) 8:00, "Adult Bee Diseases and Pests," V. G. Milum. 9:00, "Diagnosing Brood Disease," G. H. Cale. 10:00, "Apiary Inspection and Methods of Bee Disease Control," C. L. Duax, Chief Inspector of Apiaries. Question box and miscellaneous topics. 1:00, "What Organization Does for Beekeepers," Adam Bodenschatz, President Illinois State Beekeepers' Association. "What the Ladies' Auxiliary May Expect to Accomplish," Mrs. Adam Bodenschatz. "Value of Beekeeping in 4-H Clubs," Robert Beer. 2:00, "Gaining Knowledge from Exhibiting at Fairs," Hoyt Taylor, Secretary Illinois State Beekeepers' Association. 2:30, "Some Hints on Marketing," G. H. Cale.

In addition to the beekeeping pro-

gram, sectional programs will be held concurrently in other subjects such as fruit growing, vegetables, poultry, animal husbandry, dairy production and manufacturing, field crops, agricultural engineering, farm management and home economics. Those attending may attend any course separately or transfer from one section to another as subjects of interest are given. There is no registration fee, the only expense being those of transportation, room and meals. Those interested in a detailed program of the entire Farm and Home Week schedule should address a post card request to the College of Agriculture, Urbana, Illinois.

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Kansas Beekeepers February 10.

The winter meeting of the beekeepers of Kansas will be held February 10, during Farm and Home Week, on the campus of Kansas State College, Manhattan. The program is sponsored by the Department of Entomology of the College, under direction of Dr. R. L. Parker, State Apiarist and professor of apiculture, cooperating with Kansas State Beekeepers' Association. A full program will be given in the February issue.

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No Honey Week in 1938.

According to the latest advice

from American Institute, it will be impossible this year to sponsor a National Honey Week. Since this would be an addition to the Honey Harvest Festival, it simply means a transfer of emphasis from the previous and older effort which took place in the spring, usually during April each year to the newer one of a fall concentrated publicity campaign at the time honey is available from the new crop on the national market.

Probably, Honey Harvest Festival will be held in the fall as it was last year. Those who promoted the Honey Harvest Festival for 1937, October 25-30, report decidedly helpful results.

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Pennsylvania State Beekeepers' Association, Room D, Farm Show Building, Harrisburg, Pa., January 19-20.

Wednesday morning at 9:30. Meeting called to order by the president, H. M. Snively, Carlisle, Pa. Invocation. Address of welcome, the Honorable J. Hansell French, secretary of agriculture. "A Sideline's Viewpoint," Thomas A. Berkey, Easton, Pa. Open discussion. Report of secretary-treasurer, Charles Hess of Rothsville, Pa.

Wednesday afternoon at 1:30. Election of officers. President's address, H. M. Snively. "Beekeeping



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Author of "Our Backdoor Neighbors"



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By Frank C. Pellett

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**American Bee Journal
Hamilton, Illinois**

with Fruitgrowing," J. W. Lucabaugh, Hanover, Pa. Report of apiary inspection, W. M. Glebe, state inspector. "Bee Management to Reduce the Spread of American Foulbrood," W. E. Dunham, Ohio State University, Columbus, Ohio. "Taking the Uncertainties from Beekeeping," Dr. E. F. Phillips, Cornell University, Ithaca, N. Y. Business session.

Wednesday evening at 6:30. Jackson's Domestic Science Kitchen, 206 Walnut Street, Harrisburg. Beekeepers' banquet. "Beekeeping as a World Enterprise," Dr. E. F. Phillips. "Honeybees for Red Clover Pollination," W. E. Dunham. One reel motion pictures, E. J. Anderson, Extension Apiarist, State College.

Thursday morning at 9:30. "Equipment for Heating and Bottling Honey," Roy Howell, Saylorsville, Pa. "Recent Progress in the Handling of Honey," Dr. E. F. Phillips. "Seasonal Variation," E. J. Anderson. "Comb Honey Production," W. E. Dunham. Representatives of various supply companies.

Thursday afternoon at 1:30. "Does It Pay to Keep Bees in Pennsylvania," A. T. Keil, Mars, Pa. Discussion, Harry Beaver, Troy, Pa. "Roadside Marketing," Walter Doud, Mansfield, Pa. Echoes from the field, representatives of county organizations, visitors from other states.

Michigan Meeting, February 2-3.

According to the Michigan News Letter of December 1, the annual meeting of the Michigan Association will be held in the Horticultural Building of the Michigan State College, East Lansing, Michigan, February 2-3. Programs may be obtained by writing to Russell H. Kelty, East Lansing, Michigan.

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Beekeepers' Conference.

Agricultural Conference Week, Agricultural Building, Room 103, Purdue University, at Lafayette, Indiana, January 11-13.

Tuesday, January 11, 9:00-12:00, "Beekeeping in Indiana"—trends and future work, J. E. Starkey, Chief Apiary Inspector of Indiana. "My Contacts with Indiana Beekeepers," Benjamin J. Wilkins, Assistant State Bee Inspector, Indianapolis. "Improvements in Strains of Bees," B. Elwood Montgomery, Purdue.

Tuesday, January 11, 2:20-4:30, "A New Deal in Beekeeping," L. R. Stewart, Newport, President Indiana Beekeepers Association. "4-H Clubs in Beekeeping and Their Value to Beekeeping," G. E. Lehker, Purdue. "A Year in the Apiary," R. H. Kelty, Michigan Agricultural College, East Lansing, Michigan.

Wednesday, January 12, 9:00-12:00, "Time Savers in the Honey

House and Bee Yard," L. R. Stewart. "Spring Management and Swarm Control," R. H. Kelty. "The Honeybee—A Model of Insect Adaption," B. Elwood, Montgomery.

Wednesday, January 12, 2:30-4:30, "Comb Honey Production in Indiana," L. R. Stewart. "Three Questions in Requeening: Why, When, and How?" R. H. Kelty. "Value and Methods of Wintering Bees in Indiana," Ross B. Scott, La Grange.

Thursday, January 13, 9:00-12:00, "Among the Beekeepers of other States," R. H. Kelty. "New Markets for Honey and Honey Products," A. J. Thomas, C. M. Scott Co., Indianapolis. "Recognition of Bee Diseases and Latest Recommendations for Control," J. E. Starkey.

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Ohio Beekeepers' Short Course.

An intensive three-day Beekeepers' Short Course is scheduled during Farmers' Week for January 24, 25 and 26, Botany and Zoology building, Ohio State University. Approximately 20 lectures and demonstrations will be presented during the Short Course on the practical phases of bee culture.

At this time the abundance of honey plants is extremely favorable, yet experts are anticipating many specific apiary problems for the coming season due to the rather un-

SELL HONEY

Keep your honey customers. With a good crop this year you will need them. We offer select lots of honey. Write us about your needs.

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THE HONEY BEE—

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A Useful Book

The growth of commercial beekeeping has been responsible for the development of outapiaries. Most men who depend upon their bees now have more than one apiary. There are certain fundamentals to be considered by every commercial beekeeper, and the book

OUTAPIARIES

By M. G. DADANT

Is very helpful in this field. The author grew up in the beeyard. His father and grandfather before him were commercial honey producers.

Suggestions for choosing a location, selecting apiary sites, system of management, moving the bees, harvesting the crop, as well as equipment and management are included. The book is cloth bound and sells for only one dollar. Second edition revised.

AMERICAN BEE JOURNAL
Hamilton, Illinois

favorable condition of many colonies of bees in the state. The subject material is built around these anticipated problems of the beekeepers and for this reason beekeepers are especially urged to attend this educational meeting so that they may better cope with their problems during the coming season.

Out-of-state speakers selected to cover fundamental phases of beekeeping are: Dr. E. F. Phillips, Professor of Apiculture, Cornell University, Ithaca, New York; G. H. Cale, Field Editor, American Bee Journal, Hamilton, Illinois; and Dr. R. E. Lothrop, United State Bureau of Chemistry and Soils, Washington, D. C.

Speakers within the state will include representatives from the State Department of Agriculture, Ohio State University, Ohio Farm Bureau, Editorial staff of Gleanings in Bee Culture, manufacturers of bee supplies and leading apiarists from various honey producing areas.

The banquet is scheduled for the evening of January 25 and according to the "banquet committee" plenty of good fun is in store for all.

A copy of the program for the Beekeepers' Short Course may be obtained upon request to the Division of Bee Culture, Ohio State University, Columbus, Ohio.

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American Honey Producers' League.

President Harrell has announced the dates of the 1938 meeting as of December 5, 6, 7, 1938, in New Orleans, La. The hotel headquarters have not yet been decided on.

The legislative committee is composed of W. E. Anderson, Baton Rouge, La., Chairman; H. F. Wilson, Madison, Wisconsin; and Chas. A. Reese, Columbus, Ohio. All suggestions relating to legislative needs

should be addressed to these gentlemen.

Other committee personnel and reports of progress will be presented in future articles in the bee journals. Several things have already been done along preparatory lines and you will be informed as quickly as we arrive at definite conclusions.

Just now we would welcome a few membership dollars. We have received 17 memberships up to this date and we need more in order to take care of our Institute Membership Pledge. Send your dollar bills to the Secretary-Treasurer and save the 10 cents exchange on such small checks. Your subscriptions to bee journals will be extended one year for an additional 50 cents per journal.

The League wishes to extend to every beekeeper, its best wishes for a happy and prosperous New Year.

Geo. W. Bohne, Luling, La.
Secretary-Treasurer.

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Illinois State Meeting.

The annual meeting of the Illinois State Beekeepers' Association was held at Springfield, Illinois, November 9 and 10. In spite of the fact that Illinois has an extremely short crop this year, the attendance was normal or above and there was general optimism on the part of the beekeepers in attendance.

Inspector C. L. Duax gave a report on the year's work in bee inspection. During the year 60,228 colonies were inspected of which 4,345 were found to be infected with A. F. B. A large percentage of this number were destroyed, either by the owner or the inspector, the general feeling being towards a campaign of burning.

While the percentage of disease, 7%, seems to be rather excessive, Mr. Duax pointed out that this was

largely due to the fact that the heavy work of the inspectors was done in the areas which had not been carefully searched before and that some areas were much more relatively clean.

The work of the ladies, particularly beekeepers' wives, is to be commended. The Illinois Foundation and the County Hostesses in co-operation with the American Honey Institute, have done a particularly desirable piece of work in fostering honey cookery at the Illinois State Fair and in this they have been ably helped by Miss Van Gilder of the Culinary Department, as well as by the director in charge of the State Fair and the Department of Agriculture of the state of Illinois.

Addresses were given by Mr. E. R. Root, President Duckwall, Jas. E. Starkey of the Conservation Department of the state of Indiana, Walter T. Kelley, Mrs. Florence Bodenschatz, M. G. Dadant, Miss Willah Goodman of the American Honey Institute and Prof. V. G. Milum of the University of Illinois.

A proposal to amend the Constitution and By-Laws of the state association in order to include in the association, the Illinois Honey Foundation, was defeated.

The following were chosen as officers for next year; Adam Bodenschatz, Lemont, president; Vice-presidents B. E. Beach, Rockford; O. G. Rawson, Belleville; Marion Porter, Pittsfield; I. C. Evans, Decatur; John Dineen, Springfield. For secretary, Hoyt Taylor, of Pleasant Plains. Wesley W. Osborn of Hillsboro was reelected treasurer.

Membership was voted in the American Honey Producers' League and a contribution was made to the American Honey Institute.

There seemed to be a general feel-

PACKAGE BEES AND QUEENS FOR 1938

Especially selected for thriftiness, honey getting, and gentleness. All queens personally reared. Will ship on date you set. Write us.

R. B. HERIER, Valdosta, Georgia

BOOK YOUR ORDER

With us for your 1938 supply of bees and queens. No deposit required.

Merrill Bee Company

BUCATUNNA, MISS.

GET RUNNING'S BEES

And Get Honey—They Satisfy
PACKAGES AND QUEENS

The kind WE use in our extensive Michigan Apiaries, where WE produce honey by the carload.

ALL ITALIAN STOCK

Service guaranteed. Stock bred for honey-getting and gentleness. Apiaries accredited and certified by Alabama Department of Agriculture. Get our free circular. YOU can now get RUNNING'S Bees and Queens as cheap as others.

All bees and queens shipped from our Alabama Apiaries. 2-lb. pkg. and queen, \$2.45; 3-lb. pkg. and queen, \$3.15. Untested Italian queens, 75c. No discounts.

DAVID RUNNING APIARIES
Sumterville, Alabama or Filion, Michigan

HONEY BOWL BEES and QUEENS

Again we offer our powerful queens, package bees and nuclei. Last year's business four times bigger than 1936. Only the best bees and service could promote this phenomenal growth.

Write for reasons and prices
HONEY BOWL APIARIES
Reserve, La.

Best Wishes

We wish to take this opportunity of wishing every beekeeper a happy and prosperous New Year. Reserve your orders for us. Comb packages: One Standard Comb, 2-lbs. of bees, queen introduced \$2.45 each. Additional combs 70c; additional lbs. of bees 70c. Combless packages: 2-lbs. of bees and queen, \$2.45 each. 1938 sees us in a better position than ever before to furnish quality bees. Book your order with us.

**Louisiana Comb Shippers and
Honey Producers Association**

ing that the greatest effort possible should be made to get behind American Honey Institute and foster and support its work.

Iowa Convention.

The Iowa beekeepers held their annual meeting at Ames on November 18 and 19. In spite of the first winter storm the attendance was good and a large number of young beekeepers turned out. Walter T. Kelley, of Paducah, Kentucky, and Henry Dadant, of Hamilton, Illinois, were the out of the state speakers.

Of special interest was the demonstration of the making of the milk-honey candy bar by Prof. Iverson of the dairy department of the college. This new product which combines milk and honey in a very substantial manner offers a promising outlet for both ingredients.

The experimental projects of the Agricultural Experiment Station were discussed at length by Dr. O. W. Park and Dr. J. N. Martin. The comparison of races of bees and the study of disease resistance in honeybees were Dr. Park's subjects while Dr. Martin told the story of the study of red clover pollination and the new Zofka red clover under test at the cooperative field station at Atlantic.

The ladies held their sessions separately and demonstrated that a ladies' auxiliary can be made interesting and helpful. All officers of both societies were reelected.

Michigan Short Course, March 8-11.

The Michigan Beekeepers' Short Course will this year be held at the Agricultural College at East Lansing, Michigan, from March 8 to 11. Write to Prof. R. H. Ketyl, Agricultural College, East Lansing, Michigan for

copy of program. Registration fee for course for Michigan beekeepers, \$1.00.

Indiana County Meetings, January-February.

Date Jan.	County	City	Time P. M.
5	Hancock	Greenfield	1:30
6	Henry	Newcastle	1:30
7	Deleware	Muncie	1:30
8	Madison	Anderson	1:30
17	Wayne	Richmond	1:30
18	Randolph	Winchester	1:30
19	Jay	Portland	1:30
20	Adams	Berne	1:30
21	Wells	Bluffton	1:30
22	Allen	Fort Wayne	1:30
24	Hamilton	Noblesville	1:30
25	Tipton	Tipton	1:30
26	Howard	Kokomo	1:30
27	Grant	Marion	1:30
28	Blackford	Hartford City	1:30
29	Huntington	Huntington	1:30
Feb.			
4	Wabash	Wabash	1:30
5	Miami	Peru	1:30
7	Cass	Logansport	1:30
8	Carroll	Delphi	1:30
9	Benton	Fowler	1:30
10	Newton	Kentland	1:30

Insect Classification

A new book of interest to technical entomologists has recently been issued. It is "The Historical Development of Insect Classification." It is of interest to our readers because one of the authors is Prof. H. F. Wilson, of the University of Wisconsin, chairman of the finance committee of the American Honey Institute. The other author is M. H. Donor.

The book gives an extended history of the origin and development of the various systems of insect classification and should be very useful to entomologists.

To men in our field, Wilson is well known for his beekeeping activities but as head of the Department of Economic Entomology, his work must cover the whole range of insect life. We are fortunate that a man in his

position is willing to give so much of his attention to the cause of the honey producer.

—ABJ—

Let's Be Our Own Best Customer First

Some time ago a beeman wrote in this magazine a letter stating his customs of using honey. This man was using honey almost constantly in his household. Well, he must have a fair wife, for sure. Ain't it mama and the girls who do the cooking? Not daddy. But if daddy wants a good honey cake, or waffles and honey, mama will try to do her best. I have known farmers, who sold their cream and bought Oleo. In 1914 I worked for a farmer milking about 15 cows and many a time no milk on the table. No wonder one month was my limit on that place. We, in our family of four kids from one and one-half to twelve years, plus wife and me, one pound of honey a day is our average. Here are some of our uses. Malt beverage (home brew), mead, wine, syrup, baking, cold drinks, etc. Butter and honey melted together can't be beat for pancakes or waffles. In fact we have done our best to replace sugar with honey. Use honey for canning and have honey on the table along with your sugar, pepper, salt and mustard. We never ask our children, do you want honey? They themselves ask for it, and because it is always within reach, they use it quite often. Perhaps some folks may state my kids are tired of honey. Well, ask them are they tired of vinegar pickles, jams, sugar or candy. Let's be our best customer first. Then let's ask them to buy more honey.

Amateur Beeman.

PACKAGE BEES and QUEENS

The type that gives you less trouble in swarming season. Queens 75c ea. 2 lb. Package and Queen \$2.45. 3 lb. Package \$3.75. Discount to dealers. Safe arrival. Satisfaction guaranteed.

TAYLOR APIARIES, Luverne, Alabama

WANT THE BEST OF

Package Bees & Queens

IN 1938? Then Write NOW To

DAVIS BROS., Courtland, California

BEES-QUEENS

WRITE FOR 1938 PRICES
Satisfaction Guaranteed

ROSSMAN & LONG
MOULTREE, GA.

"50-50"

Muth's Queens (ultra violet treated) and "Hercules" non-sagging comb foundation takes the chance out of half your problems.

FOUR IMPORTANT THINGS control your honey crop. Upon these depend the amount of your success or failure.

Queens-Foundation-Season-Your Ability

Ship your beeswax to us for manufacturing into comb foundation. Our high quality is undisputable our prices low, attractive.

AS LOW AS 10 CENTS PER POUND

Write for complete list of working your wax into various sizes and weights. Money saving prices quoted on all other supplies. Buy early and save money.

Pearl & Walnut Streets.

THE FRED W. MUTH CO.

Cincinnati, Ohio

Package Bees & Queens for 1938

We regret the impossibility to quote prices for 1938 in this ad. This is due to the lateness of the Government's Public Hearings on proposed revisions in the Marketing Agreement, results of which have not yet been published.

Package bee purchasers may rest assured however, that we have better service than ever in store for them for 1938.

Send in your orders to be booked in an orderly manner, as respect to dates bees required. Details of prices to be arrived at after Revisions in Marketing Agreement have been made public.

A Prosperous New Year Is Our Wish To All.

GARON BEE COMPANY

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DONALDSONVILLE, LA.

Write *free* Book on the . . . for *free* GREAT NORTHWEST

Thousands of acres of sweet clover and other honey plants that give honey of high yield and fine quality. Favorable localities—Red River Valley, in Minnesota and North Dakota; Milk River Valley; Lower Yellowstone Valley; Valier Project; Kootenay Valley, in Montana and Idaho; and the Pacific Coast Region in Oregon and Washington. ● Beekeepers in this country are increasing their holdings and new beekeepers are establishing themselves along the Great Northern Railway in these states. Diversified farming and livestock are similarly favored by low cost production. ● Write for Free Booklet on beekeeping and farming opportunities, including Low Homeseekers' Round Trip Excursion Rates.

E. C. LEEDY DEPT. J., GREAT NORTHERN RAILWAY
SAINT PAUL, MINNESOTA

Australian Beekeeping News
The Leading Bee Journal of the
Southern Hemisphere is the

"Australasian Beekeeper"

Subscription 5 shillings per year, start any time. Enquire for International money order for 5 shillings (Australian) at your Post Office. Write now to The Editor, P. O. Box 20, West Maitland, New South Wales, Australia.

**If You Want Quality and Service
On Package Bees and Queens
Italian or Caucasian. Write
Weaver Apiaries, Navasota, Texas**

Mention the American Bee Journal When Writing Advertisers



FOR BETTER
BEEKEEPING USE—

Dadant's Foundation

FIRST CHOICE OF
EXPERT BEEKEEPERS

Package Bees and Queens
By Pound, Ten or Car.

Service - Satisfaction

Trade Agreement Prices. Write for particulars.

VICTOR APIARIES :: UVALDE, TEXAS

**Try KOEHNEN'S
PACKAGE BEES and QUEENS**

FOR QUALITY AND SERVICE
Let us book your order, now.

KOEHNEN APIARIES
GLENN, CALIFORNIA



**At the End of the Day—
with a BRAND MELTER**

✓ A Cake of Clean Wax
✓ Good Honey in the Tank
**The New BRAND MELTER
will do that for you too!**

Solves the problem of melting cappings. Uses waste steam from uncapping knife or plane. No injury to honey; no wax or specks. No honey left in wax.

For full particulars
write to

W. T. BRAND
MITCHELL NEBRASKA

GENUINE ITALIAN PACKAGE BEES AND QUEENS

Satisfaction—Finest Quality—Write for Circular

HOLDER APIARIES, Citronelle, Ala.

PLAN FOR 1938 NOW!

Let Package Bees Increase
Your Profits

J. M. CUTTS & SONS

R.F.D. No. 1 Montgomery, Ala.

BEE SUPPLIES

A. H. RUSCH & SON CO.
REEDSVILLE, WISCONSIN

Manufacturers :: :: Jobbers

the BEEKEEPER'S EXCHANGE

Copy for this department must reach us not later than the fifteenth of each month preceding date of issue. If intended for classified department, it should be so stated when advertisement is sent.

Rates of advertising in this classified department are seven cents per word, including name and address. Minimum ad, ten words.

As a measure of precaution to our readers, we require references of all new advertisers. To save time, please send the name of your bank and other references with your copy.

Advertisers offering used equipment or bees on combs must guarantee them free from disease, or state exact condition, or furnish certificate of inspection from authorized inspector. Conditions should be stated to insure that buyer is fully informed.

BEES AND QUEENS

GENUINE THREE BANDED ITALIAN Bees and Queens for 1938. Alamance Bee Company, Geo. Elmo Curtis, Mgr. Graham, N. C.

CAUCASIAN PACKAGE BEES. Booking orders now for 1938 delivery at new market agreement prices.
P. B. Skinner Bee Co., Greenville, Ala.

FOR SALE—Italian Bees and Queens. Nothing but the best. Let us have a portion of your queen and bee trade for 1938. We will please you.
Graydon Bros., Route 2, Greenville, Ala.

PACKAGE BEES that will please you. Sternberg Bros., Lockhart, Texas.

PACKAGE BEES WITH QUEEN INTRODUCED eliminates loss of queens. Send for free folder. A. O. Smith, Mount Vernon, Indiana.

MY CAREFULLY PREPARED PACKAGES of pure three banded Italians will make money for you. Inquire now. Hugh Graham, College Station, Texas.

MACK'S QUEENS. They speak for themselves. For prices write MACK, The Bee Man, Robinson, Ill.

MOUNTAIN GRAY BEES. Write for our catalog; in it will be found our prices and description of our genuine Caucasian bees. Bolling Bee Co., Bolling, Ala.

HONEY FOR SALE

FOR SALE—Northern white extracted and comb honey.
M. W. Cousineau, Moorhead, Minn.

CHOICE Michigan Clover Honey. New 60's. David Running, Fillon, Michigan.

HONEY FOR SALE—Any kind, any quantity. The John G. Paton Company, 230 Park Avenue, New York.

BUCKWHEAT HONEY famous Helderberg quality in 60's.
H. Greulich & Son, Scotia, N. Y.

FOR SALE—Well ripened clover honey, car lot or local shipments. Will be pleased to submit sample. **THE COLORADO HONEY PRODUCERS' ASSN.**, 1324 Market St., Denver, Colorado.

HONEY FOR SALE—All kinds, any quantity. H. & S. Honey and Wax Company, Inc., 265-267 Greenwich Street, New York.

FOR SALE—Fancy, well ripened, white sweet clover honey in 60-lb. cans. Extra good quality. Dadant & Sons, Hamilton, Ill.

DELICIOUS PALMETTO HONEY in new sixties.
Peter W. Sowinski, Fort Pierce, Florida.

HOWDY'S HONEY—White clover and amber, mixed extracted in sixties. Howard Potter, Ithaca, Michigan.

HONEY PACKERS—Write us for prices on carload lots of California and Western honeys. We stock all varieties. **HAMILTON & COMPANY**, 108 West Sixth St., Los Angeles, California.

BUCKWHEAT HONEY extracted in sixties, 6½ cents. Clarence Dalrymple, Dayton, N. Y.

FOR SALE—New York State clover and buckwheat extracted honey in sixty pound cans. Walter Severson, Altamont, New York.

FOR SALE—No. 1 weight clover comb (discolored some) \$4.00 per case of 24 sections. Amber extracted in sixties 7½ cents.
H. G. Quirin, Bellevue, Ohio.

LIGHT AMBER (Goldenrod) comb and extracted honey. Some chunk. F. J. Smith, Castalia, Ohio.

FOR SALE—Clover extracted in sixties. C. Holm, Genoa, Ill.

HARRIS, Michigan Clover Extracted in new sixties. J. N. Harris, Saint Louis, Michigan.

AMBER in new 60's, 7c. E. S. Miller, Valparaiso, Indiana.

75 60 POUND CANS choice heavy bodied, light amber fall honey, \$4 per can. Valley View Apiaries, Savanna, Ill.

HONEY AND BEESWAX WANTED

WANTED—Extracted Honey. Send sample and price delivered to T. W. Burleson & Son, Waxahachie, Texas.

WANTED—Car lots honey; also beeswax, any quantity. Mail samples, state quantity and price. Bryant & Cookinham, Inc., Los Angeles, California.

WANTED—White and Amber Extracted Honey, any quantity; also beeswax. Write **THE FRED W. MUTH CO.**, Pearl and Walnut Sts., Cincinnati, Ohio.

WANTED—Comb, chunk comb, white and light amber extracted honeys. Any amount. Central Ohio Apiaries, Millersport, Ohio.

CASH PAID FOR COMB AND EXTRACTED HONEY, CARLOADS AND LESS THAN CARLOADS. Send sample and best price F. O. B. shipping point. C. W. Aeppler Company, Oconomowoc, Wisconsin.

FOR SALE

HONEY CASES AND CANS. Used once. Leon Short, Zion Baking Industry, Zion, Illinois.

BEE SUPPLIES, honey pails and jars. Cash paid for all grades of honey.
A. Tennenhouse, 12213, 12th St. Detroit, Michigan.

500 COLONIES bees and equipment, in good condition. Can furnish certificate of inspection. John W. Berryhill, Lakeland, Ga.

FOR SALE—400 standard 8 and 10 frame deep extracting supers, no frames; also 100 bottoms and covers, 100 queen excluders. Chester Keister, Clarno, Wis.

FOR SALE—1000 10-frame hive bodies K. D. at bargain prices; also covers and bottom boards. Chas. Albrecht, Brownton, Minn.

150 COLONIES bees, two-story 10-frame painted hives, fully equipped. No disease. Theodore Sires, Yakima, Washington.

WILL SELL all or part package outfit. Alonzo McKay, Rt. 1, Vicksburg, Miss.

FOR SALE—We accumulate bee supplies at our five warehouses slightly shopworn or fully serviceable but discontinued for lack of sale. Write for complete bargain list. G. B. Lewis Company, Watertown, Wisconsin.

HAVE JUST PURCHASED: 2 Elyria blue glass lined jacketed agitated KETTLES, used for melting and mixing honey, 300 gal.; also have complete line of honey processing and bottling equipment. Send us your inquiries. **CONSOLIDATED PRODUCTS CO. INC.**, 13-14 Park Row, New York, N. Y.

WANTED

WANTED—Manager position of honey production. 20 years' experience in South and North. Excellent references. Write Minn., care American Bee Journal.

TWO EXPERIENCED HELPERS first May, 7 months, no board. Working 2000 colonies, Harlan, Iowa. State qualifications and wages expected. Old Taylor Honey Co., Chandler, Okla.

POSITION WANTED—Experienced beekeeper can handle twelve colonies hour. State wages. Carl Koch, Emerson, Nebr.

WANTED—Package men and queen breeders for 1938 season beginning March 1st. Must be efficient, strictly temperate, and willing to deliver the goods. Single men preferred. State wages expected in first letter. Board and room not furnished. Jensen's Apiaries, Macon, Miss.

SUPPLIES

QUALITY BEE SUPPLIES at money-saving prices. Prompt shipment. We take honey and beeswax in trade. The Hubbard Apiaries, Onsted, Michigan.

BEST QUALITY bees supplies, attractive prices, prompt shipment. Illustrated catalog on request. We take beeswax in trade for bee supplies. The Colorado Honey Producers' Association, Denver, Colorado.

DIFFERENT, that's all. Written and published for the instruction of beekeepers. 52 pages of breezy entertaining beekeeping comment each month. One year, \$1.00; two years, \$1.60. Sample, 3c stamp.
The Beekeepers Item, San Antonio, Texas.

ATTRACTIVE PRICES on bee supplies and comb foundation. Send for catalog. Saves you money. **THE FRED W. MUTH CO.**, Pearl and Walnut Sts., Cincinnati, Ohio.

FOR SALE—Queen mailing cages. Material, workmanship and service all guaranteed. Write for quantity prices.
Hamilton Bee Supply Co., Almont, Mich.

YOUR WAX worked into high quality medium brood foundation 15c lb; 100 lbs. \$11.00; thin super 22c. Fred Peterson, Alden, Iowa.

\$11.00 IS OUR PRICE for working 100 lbs. of your wax into medium brood. Guaranteed best quality, sample and shipping tags free. Free catalogue tells why we undersell everybody on quality supplies, write. Walter T. Kelley, Co., Paducah, Kentucky.

EXCHANGE

EXCHANGE limited number packages for honey. Alonzo McKay, Rt. 1, Vicksburg, Miss.

MISCELLANEOUS

PLANS FOR POULTRY HOUSES—All styles; 150 illustrations. Tells you the type to build for your particular locality. Secret of getting winter eggs, and copy of "Inland." Send 25c.
Inland Poultry Journal, Spencer, Indiana.

BOOK BARGAIN—Very slightly damaged copies of *Beekeeping in the South* by Kenneth Hawkins, cloth bound, published to sell at \$1.25, price postpaid only 29 cents.
American Bee Journal, Hamilton, Ill.

THE BEE WORLD—The leading bee journal in Great Britain and the only international bee review in existence. Specializes in the world's news in both science and practice of apiculture. Specimen copy, post free, 12 cents stamps. Membership of the Club, including subscription to the paper, 10/6. The Apis Club, The Way's End, Foxton, Royston, Herts, England.

HAVE YOU any Bee Journals or bee books published previous to 1900 you wish to dispose of? If so, send us a list.
American Bee Journal, Hamilton, Illinois.



Queen Yard (9000 nuclei) of the Overbey

Overbey Apairies, Bunkie, La. Ho

YOUR PACKAGE IS NO BETT

Our bees are young, hardy, healthy honey-getters. Our queens are as good as can be had. Our packages are made of the lightest materials. Each package full weight. Prompt shipments guarantee you perfect satisfaction. Pay us a visit sometime. Our men and yards will be here to give you a royal welcome. The interest of the customer is always first at Bunkie.

Does Pollen Darken Beeswax

Beeswax, as originally secreted by honeybees and formed into scales on the under sides of their abdomens, is a translucent, fatty substance resembling thin chips of good grade paraffin. It is almost colorless.

Everyone knows that boiling beeswax darkens it. But the question is; why does it darken? Perhaps it is the chemical reaction with the kettle in which boiling takes place, if that kettle be black, or galvanized iron. Then again it may be due to a slight scorching on the sides of the kettle above the water line. Even steam in a wooden vessel darkens beeswax.

In the case of combs, it is often the cocoon cases, the travel stain, the adhering propolis, or dirt and dust gathered during months of use by the bees that darken the wax. But the causes just given are not the only ones responsible for the rendered wax becoming darker brown or yellow than it was originally. It is quite possible that pollen is a vegetable coloring; or that certain pollens are.

During the past thirteen years, I

have rendered many, small amounts of comb cappings and odd pieces of wax into clean, salable beeswax. Only rarely are two different renderings exactly the same color. For a long time this difference in coloration was thought due to age of combs, dirt, cocoons, propolis or overheating, but it is certain that this coloration is partly due to pollen of different colors stored in combs rendered.

Seldom is pollen stored, by the bees, in combs not used for brood rearing, or at least not adjacent to brood nest. However, I recently rendered one super of combs that were very crooked, broken and worthless. These combs had always been used above a queen excluder, and not allowed in the brood nest because of shape and drone cells, hence had no old cocoons in them, but did have pollen along bottom bars. After extraction these combs were set back on the hive a few days to allow bees to clean them of honey, then, when dry, were taken out and left leaning against a fence when I was called to the telephone. They were completely forgotten for about ten days.

Meantime sunshine reached them part of the day. Although somewhat

melted, they were bleached several shades lighter when I came back to them. These combs were cut out of frames with care that no propolis was included. Upon rendering, resultant cake of wax was darker than at start of rendering; even darker than combs were at time of removal from hive. Clean materials and tinned steel vat were used in pressing wax from combs—in fact every precaution used trying to prevent the very thing that happened. Examination of small total of residue showed only a mixture of wax and pollen—which was very much darker than wax which was pressed from it. Evidently hot wax and pollen reacted to form a brown, vegetable coloring agent. A second pressing of this small amount of residue in clean cloth and water produced a thin scum of wax that was much darker than first rendering. This second amount of wax amounted to the size of a small marble when rolled into a ball and was almost black in color. Of course, re-heating caused part of additional coloration, but could the pollen have had anything to do with it?

D. S. Jenkins,
Utah.



the Overbey Apiaries, Bunkie, Louisiana.

a. Home of Good Beekeeping

NO BETTER THAN YOUR QUEEN

Telephone us at Bunkie; telephones, Day 177; Night 176. Truckers, come by and we can load you on short notice. We have 9000 nuclei and we rear queens that are sent to all parts of the United States, Canada and South America. Prompt service is our constant aim. We will be glad to have you visit us if you are ever in this part of the South.

California Honey Marketing Regulations

We have before us extraction from the Agricultural Code pertaining to general provisions and honey standards as revised to August 27, 1937.

It would be impossible to go into a complete detail of the regulations. However, we believe it is wise to mention some points as affects retail distribution and particularly labeling and marking of honey. One of the provisions is:

"All containers or subcontainers of extracted honey shall be conspicuously marked with (1) the name and address of the producer or distributor; (2) the net weight of the honey in the container; (3) one of the United States grades established for honey by the United States Department of Agriculture; and (4) in the case of opaque containers, with the color of the honey."

It is also to be noted that where blends of honey are distributed which consists of some honey not produced in continental United States, the honey must be labeled with the name of the territory where it is produced.

Also it is stipulated that a blend of two or more kinds of honey cannot

be labeled as a honey from one particular floral source alone. With some beekeepers it is going to be pretty difficult to stipulate exactly the floral source where a variety of sources is responsible for the crop.

The usual standard containers are stipulated.

Naturally honey if sold for consumption in manufacturing or for repacking is not open to the above regulations.

—ABJ—

Illinois State Report For 1936

A copy of the Thirty-Sixth Annual Report of the Illinois State Beekeepers' Association for 1936, compiled by Edwin F. Peterson, of Kewanee, has just been received. Those interested in securing a copy of this may write to Secretary Peterson.

The report is the thirty-sixth one and for the forty-sixth year of the Illinois State Beekeepers' Association. It gives a report of the annual convention in November, 1936, including the financial report and other items of business; a complete survey of the inspection for the year and a session of interesting papers on beekeeping, interwoven

with the transpirations of the meeting. At the end are the winners in the bee culture class for 1936 at the Illinois State Fair, and finally a list of members of the association.

—ABJ—

Bees Beaten by Moths Refuse New Home

Visiting an outyard after several weeks' absence, a local beekeeper found one hive completely deserted by the bees, with brood and honey intact but the brood nest completely surrounded by wax moths, their larvae, and webs. Apparently these enemies had first gained a foothold in one comb on each side of the hive, and from these points, although driven back from the other combs, had extended their lines across the top, ends and bottom of the hive. Their webs extended clear across the bottom board. It was at this point that the bees, reduced in numbers by a prowling skunk, gave up the fight and swarmed out. They were found clustered on a tree nearby and were hived on a set of good combs. The next day, however, they deserted these combs and went away, apparently to their destruction, as no honey was coming in from the fields. W. H. Hull, Virginia.

Crop and Market Report

Compiled by M. G. Dadant

For January number Crop and Market page, we asked reporters to answer the following questions:

1. How much honey on hand in your section?
2. How is local demand.
3. Is jobbing and carlot good?
4. Will there be enough honey in your section to carry to new crop?
5. Are prices stiffening? Retail----- Carlot-----.

Honey on Hand.

The honey on hand in the various sections of the United States runs from nothing to 15 per cent over all sections except the Pacific coast where there is a considerably larger proportion of the honey still left on hand. This applies particularly to California where our reporters suggested about 40 per cent of the crop yet left and Washington with 20 to 25 per cent.

The Canadian provinces had a sufficiently short crop so that the amount on hand is also negligible.

Local Demand.

Very few reports of local demand being excellent, many of them good and perhaps more reporting as only fair.

Likely the combination of much sorghum, a shortage of honey to offer and the stagnation in activities which we have been reading of in the papers has something to do with this. However, we believe that the demand runs about as good as it has in other pre-holiday seasons.

Jobbing and Carload Demand.

Naturally the eastern and southern sections have very little carload and not a great deal of jobbing demand, much of it being retail.

However, in the central western areas and particularly in the plains states the demand both jobbing and carload have been unusually good, in a great many instances no honey to supply the demand. As reported previously in this page, there has developed quite a large demand on the part of the small packer who is not able to use a carload but wants honey in ton or 5-ton lots. This has absorbed practically all of the available honey throughout the central west plain states. In the intermountain territory also the honey is very well cleared up and we have one or two reports of an unsupplied demand and buyers inquiring.

However, on the Pacific coast, as reported in our last issue, there is plenty of honey left and jobbers do not seem to be very enthusiastic about buying. Naturally this is the pre-holiday season and many packers and jobbers want to go through without loading up again before the inventory season. It is likely the demand will pick up again immediately after the first of the year.

Enough Honey Until Next Year.

Practically all reports are to the effect that there will not be enough honey locally left on hand to supply the demand until the 1938 crop is available. Some sections which do not report thus and state they will have sufficient honey are particularly the southern sections and California. In fact the entire Pacific coast. Naturally the southern crop comes earlier and there is not the drain on southern honey to go into the large markets, many of the beekeepers and producers holding their

honey specifically to take care of local demand throughout the year.

Are Prices Stiffening?

We were somewhat surprised to find that there is practically no stiffening in price over one month or two months ago. There were a few reporters particularly in the central western areas who stated that the retail prices were stiffening and many beekeepers owing to short crop were asking more for their honey than they had a little earlier since the demand had developed and it did not look like they would have enough local honey to supply. In other words purchased honey will cost more and it is necessary to raise prices to the general level in many instances.

However, as to carlot prices, although the price was inclined to stiffen clear up to the Pacific coast, there were some reports of as much as 1 cent less being offered for honey during the past month than had been offered earlier. However, we see no reason for any such reduction in price as it seems very evident that packers and users of honey will readily clear up their stocks and need more. It is true, however, that the California crop this year was much greater than it has been for several years and this has inclined towards a trading policy on the part of the buyers. This combined with the fact that many of the cars still left are of amber quality which unfortunately is not so readily usable, probably accounts for the stagnation.

Summary.

All in all, it looks like the retail and jobbing demand were all that we could expect during the December holiday season. It looks, too, like all honey will readily be cleaned up especially in view of the fact that there have been exported nearly a million pounds more honey during the past year than there was in the year previous and the demand for export seems to be picking up. With likelihood that the policy on the part of the State Department at Washington will be towards more reciprocal treaties and more possibilities for a satisfactory shipment of honey into foreign countries, we should look forward to additional export sales.

One thing confronts the honey buying public and naturally the honey producer also and that is that many, many sections this year are short of honey and instead of the usual distributors being forearmed and purchasing honey to supply the demand so as to keep their customers, these little markets are going begging. The larger packers cannot afford to go into these markets when next year they may be confronted with cut prices and no opportunity to repeat by placing honey therein. However, we do see packer's honey coming into many of the smaller markets where it has not appeared before, likely due to the shortage of honey, particularly in the central western and especially in the plain state areas. The plain states have had really a dearth of honey this year and the usual small distributors have nothing to offer. They are a long ways from a market and not being in a position to buy in carload lots, are rather shut out from getting honey to supply the demand.

Federal Control of Inter-State Movement of Bees

I read your article on page 540 of the American Bee Journal about the suggestion that a resolution be submitted in Washington to empower the Federal Government to coordinate the existing state laws to control the inter-state movement of bees on combs. I would like to say that the Louisiana Comb Shippers and Honey Producers Association is not in favor of this plan. We respect and are confident in the authority of our state laws in each individual state.

We, of course, are afraid that such a movement would block the sale of package bees on combs. We think that this should not be hampered. Fred L. Ephardt, Louisiana.

[It is our understanding, having been present at the time this resolution for federal control of the movement of bees on combs was proposed, that it is not the intention of the movement to stop the sale of bees on combs or the movement of bees on combs when properly certified to be free from American foulbrood. The trouble now is that there are too many bootleg shipments which are not inspected nor referred to an inspector or any authority whatsoever exercised over them.—Editor.]

—ABJ—

Proposed Permanent State Quotas for American Honey Institute Support

State	Average Honey Production 1929-33 In Tons	Permanent State Quota
California	7,569	\$750.00
Michigan	6,085	600.00
Iowa	5,765	600.00
Illinois	4,750	500.00
Wisconsin	4,695	500.00
Ohio	4,653	500.00
New York	3,962	400.00
Texas	3,546	350.00
Minnesota	3,500	350.00
North Carolina	3,348	350.00
Louisiana	2,620	250.00
Georgia	2,527	250.00
Indiana	2,442	250.00
Idaho	1,940	200.00
Virginia	1,816	180.00
Colorado	1,760	175.00
North Dakota	1,727	175.00
Utah	1,565	160.00
Pennsylvania	1,543	160.00
Missouri	1,537	150.00
Florida	1,487	150.00
Washington	1,473	150.00
Arizona	1,450	150.00
Montana	1,449	150.00
Tennessee	1,432	150.00
Nebraska	1,125	125.00
Oregon	1,027	100.00
Wyoming	989	100.00
Alabama	987	100.00
Kansas	904	100.00
Kentucky	828	80.00
Arkansas	811	80.00
West Virginia	756	75.00
Mississippi	674	65.00
South Dakota	668	65.00
New Jersey	570	60.00
Oklahoma	531	50.00
South Carolina	380	40.00
Maryland	311	30.00
New Mexico	300	30.00
Nevada	258	25.00
Connecticut	247	25.00
Vermont	175	20.00
Massachusetts	132	15.00
Maine	63	10.00
Delaware	43	5.00
New Hampshire	38.5	5.00
Rhode Island	33	5.00
	86,491.5	\$8,810.00



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The Postscript

Gossip About the Office in the Making of the Magazine

"To own a bit of ground, to scratch it with a hoe, to plant seeds, and watch their renewal of life—this is the commonest delight of the race, the most satisfactory thing a man can do." So said Charles Dudley Warner. He also said, "It is not simply potatoes and beets and corn and cucumbers that one raises in his well-hoed garden; it is the average of human life."

—ABJ—

The same writer stated, "In order to enjoy agriculture you don't want too much of it." When one's tasks become too heavy they become drudgery which reminds us again of the late Noah Williamson, former president of the Iowa Beekeepers Association. Williamson told of the delight he found in beekeeping before his outfit became too large. After he had more than a thousand hives of bees he said that honey production was just another job which drove him from task to task with no time for the poetry and refinements of beekeeping.

—ABJ—

Dr. E. F. Phillips suggests that "the present lack of interest in bees on the part of beekeepers may, I fear, partially be attributed to the fact that the department, and to some degree the state stations, have taken over the job of studying bees and have robbed the beekeeper of the most interesting phase of his effort." On several occasions some mention has been made here of the fact that a generation ago all important discoveries relating to beekeeping were made by beekeepers in the apiary. Of late the beekeeper has become a honey producer, leaving to scientifically trained men the task of blazing the new trails.

—ABJ—

While it is true, as Phillips well says, "the department took over problems too difficult or too complicated for the individual beekeeper to tackle," it is also true that most of us like to try new things and to feel that maybe we will stumble upon something which is important. Of late the type of men who formerly made up the rank and file of hobby beemen are now engaged in breeding new varieties of flowers or planting rock gardens or training homing pigeons. Too many have deserted the bees.

—ABJ—

Most of the men who attained prominence in the beekeeping field in days gone by, took it up because of the peculiar attractions and not with any thought of immediate profit. Eugene Secor, one of the best known of American beemen of thirty years ago, was a wealthy man as measured by mid-western small town standards. Instead of spending his leisure with horses and other pursuits common to men of his class, he occupied himself with his bees and his garden. When his fortune deserted him in later years, he continued happily occupied with these same things to the end. Because of the simplicity of his taste he felt the losses less keenly.

—ABJ—

The writer chanced to be present when W. J. Bryan, at the peak of his popularity paid a visit to A. I. Root. The thing most apparent about Root was his enthusiasm for such simple things as are available at little cost. He seemed entirely unmindful of the details of his dress and on that very special occasion wore garments that were decidedly shabby although he could well afford the best to be had. He found as much interest in Indian runner ducks as in bees and could grow enthusiastic with equal ease on the subjects of dasheens or windmills as the source of electricity. Certainly it was not the money making possibilities which first interested him in bees although few have turned them to as good account.

Dr. Miller's "Fifty Years Among the Bees" is an interesting book because it is first of all a biography of its author. When he told of his longing for growing things during the years which he spent in a great city he revealed the reasons for becoming a beekeeper. It is not surprising to one familiar with his genial personality that he became the most popular writer on bees of modern times. All these men found with bees the expression of personal growth which Warner ascribes to the garden. They enjoyed to the full that experimentation which many present day beekeepers have lost.

—ABJ—

Readers who have written for copies of the bulletin on races of bees to be issued by the Iowa Experiment Station, which was mentioned on this page last August, have inquired why they have not received the publication. Let me say that it is because the bulletin has not yet appeared. There has been delay, as often happens with such things, but it should be out in due time when copies will be sent to those requesting it.

—ABJ—

If any reader of this page knows of coriander being grown commercially anywhere in the United States we would like to hear of it. The seed has been used since ancient times in Palestine, Egypt and China. It is reported that a million and a half pounds of coriander seed have been imported to America in a single year yet if any is grown in this country it is not generally known. European publications indicate that coriander is a honey plant of some importance where it is extensively grown.

—ABJ—

Frank Beach, of Burley, Idaho, informs us that strawberry clover is a new plant recommended for wet lands in that region. On land too wet for alfalfa and the common clovers, it is said to succeed. Strawberry clover, (*Trifolium fragiferum*) is a native of the Mediterranean region and but little known in this country. No information is at hand as to its nectar yield under American conditions but it is to be hoped that its spread may bring new bee pastures for the beekeeper.

—ABJ—

It seems probable that the bee pasture could be greatly improved by concerted effort to introduce nectar yielding plants into the agriculture of the country. The Ladino clover of Italy should succeed in irrigated regions, the cow clover of northern California may prove valuable in localities where it is not now known. Button clover is suited to warm climates and might succeed in the warmer parts of America. There are many others with promise for special locations.

—ABJ—

From a recent publication of Iowa State College of Agriculture the following is quoted: "The honey market appears to be capable of absorbing larger quantities of honey, at about present prices, than was produced in 1937. Average prices to Iowa producers on a carlot basis is about seven cents." It is further stated that this is the ceiling price at which honey can compete with other sweets under present conditions.

—ABJ—

The related blue flowered sweet clover, or balsam clover which the American Bee Journal imported from France for trial by our readers failed to make a favorable showing except in a very few places, but the few enthusiastic reports offered enough encouragement for us to get a small amount of seed for further trial by those who might wish to do so. Only a little remains and those who wish two or three ounces should send 25 cents (stamps will do) to cover cost of handling.

FRANK C. PELLETT.